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Environmental Assessment
for

F 1-2(59)182
Goatlick Slide (US 2—Glacier National Park)
Flathead County, Montana

(Control #1959)

[Control #1958]

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by the

U.S. Department of Transportation
Federal Highway Administration, Region 8

and the

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Highways Division – Engineering

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ENVIRONMENTAL ASSESSMENT
for
F 1 - 2(59)182
GOATLICK SLIDE
(Glacier National Park)
(P.M.S. C#1958)
in
FLATHEAD COUNTY

Submitted pursuant to **42 U.S.C. 4332(2)(C)**,
and **M.C.A. 75-1-201**
by the
U.S. DEPARTMENT OF TRANSPORTATION
Federal Highway Administration
and the
MONTANA DEPARTMENT OF TRANSPORTATION
Highways Division - Engineering

Cooperating Agencies

The following Federal agencies are Cooperating Agencies in the preparation of this Environmental Assessment under 40 CFR 1501.6:

U.S. DEPARTMENT OF THE INTERIOR
National Park Service

U.S. DEPARTMENT OF THE INTERIOR
Fish & Wildlife Service

U.S. DEPARTMENT OF AGRICULTURE
Flathead National Forest

Submitted by: Edrie Vinson, Date: 2-5-93
Montana Department of Transportation
Environmental & Hazardous Waste Bureau

Reviewed & Approved for Distribution: Hank Honeywell, Date: 2-29-93
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TABLE OF CONTENTS

Part	Title	Page
1st	ENVIRONMENTAL ASSESSMENT Cover	(front)
2nd	Table of Contents and List of Tables	i
3rd	Lists of Figures and Photographs	ii
4th	Distribution List	iii
I.	Description of the Proposed Action	1
II.	Purpose of and Need for Action	2
III.	Alternatives	7
IV.	Impacts	14
	1. Visual	14
	2. Geotechnical	16
	3. Air Quality	17
	4. Water Quality	18
	5 Erosion Control & Seeding	18
	6. Section 4(f) (USDoT Act)	19
	7. Hazardous Wastes	20
	8. Threatened & Endangered Species	20
	9. Plant & Wildlife	21
	10. Construction	23
	11. Transportation	25
V.	Comments & Coordination	26
	List of Preparers	28
	List of Government Agencies	28
VI.	Appendix	29

LIST OF TABLES

Table #	Title	Page
I.	Current & Future Traffic — U.S. #2	3
II.	Rare & Sensitive Species in the Proposed Project's Vicinity	22

LIST OF FIGURES

Figure # Description Page

1. Vicinity Map v

2. Project Location Map vi

3. Cylinder Pile Wall with Cantilevered Beam . . 2

4. Alternate "**A**" - Plan View 9

5. Alternate "**A**" - Typical Section 10

6. Alternate "**B**" - Plan View 11

7. Alternate "**B**" - Typical Section 12

8. Alternate "**C**" - Plan/Side Views with Typical Section 13

PHOTOGRAPHS

Photo # Description Page

i. "*Oblique View of Project Area*" 5

ii. "*Looking SouthEasterly along **r-e** Wall*" 5

iii. "*Looking SouthEasterly along U.S. #2*" 6

iv. "*Looking Westerly from **r-e** Wall to River*" 6

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Project Vicinity Map

F 1 - 2(59)182

(P.M.S. C#1958)

GOATLICK SLIDE

(Glacier National Park)

One inch represents approximately [illegible] miles

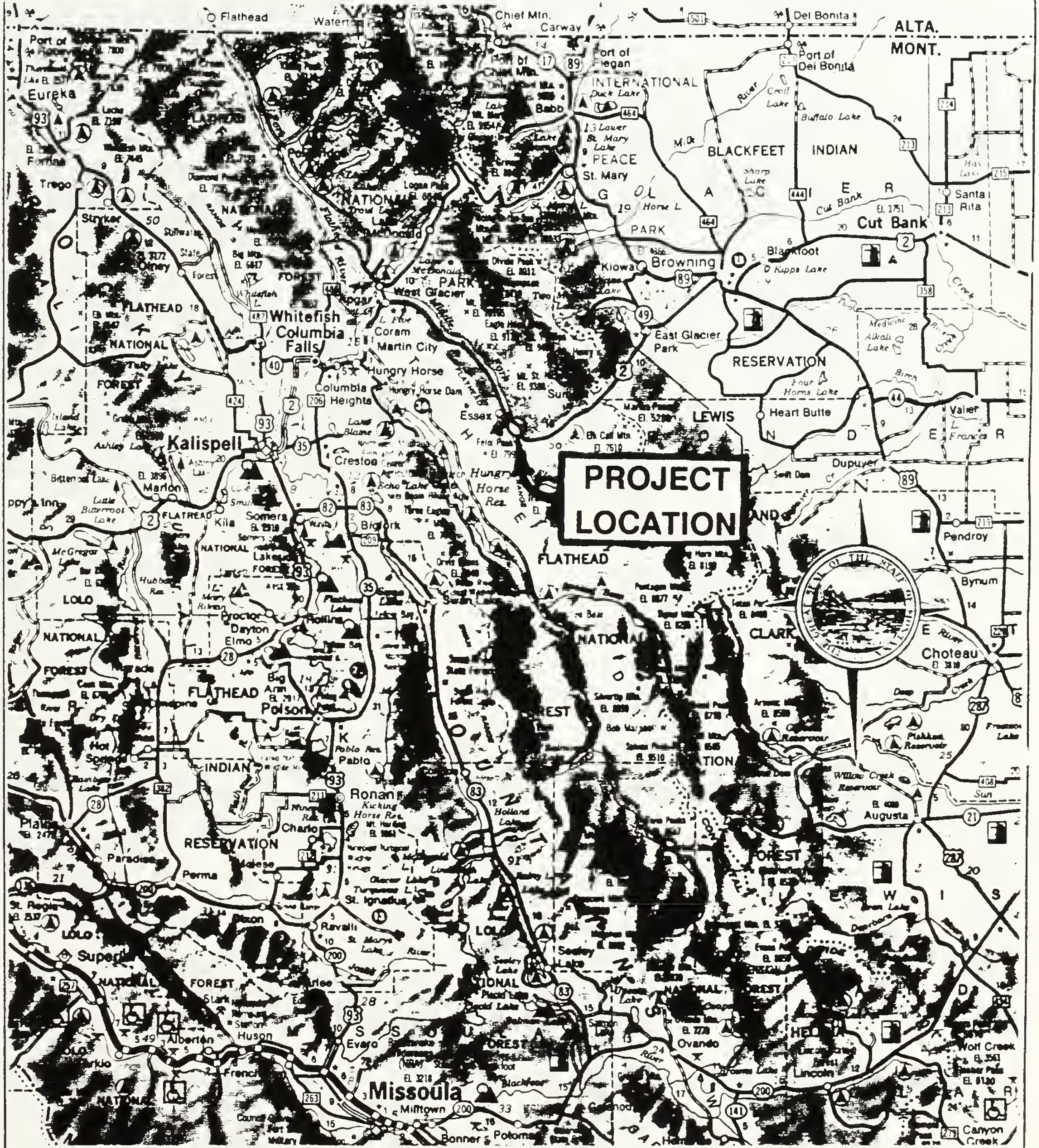


Figure #1 - From Montana Highway map.

Project Location Map

F 1 - 2(59)182

(P.M.S. C#1958)

GOATLICK SLIDE

(Glacier National Park)

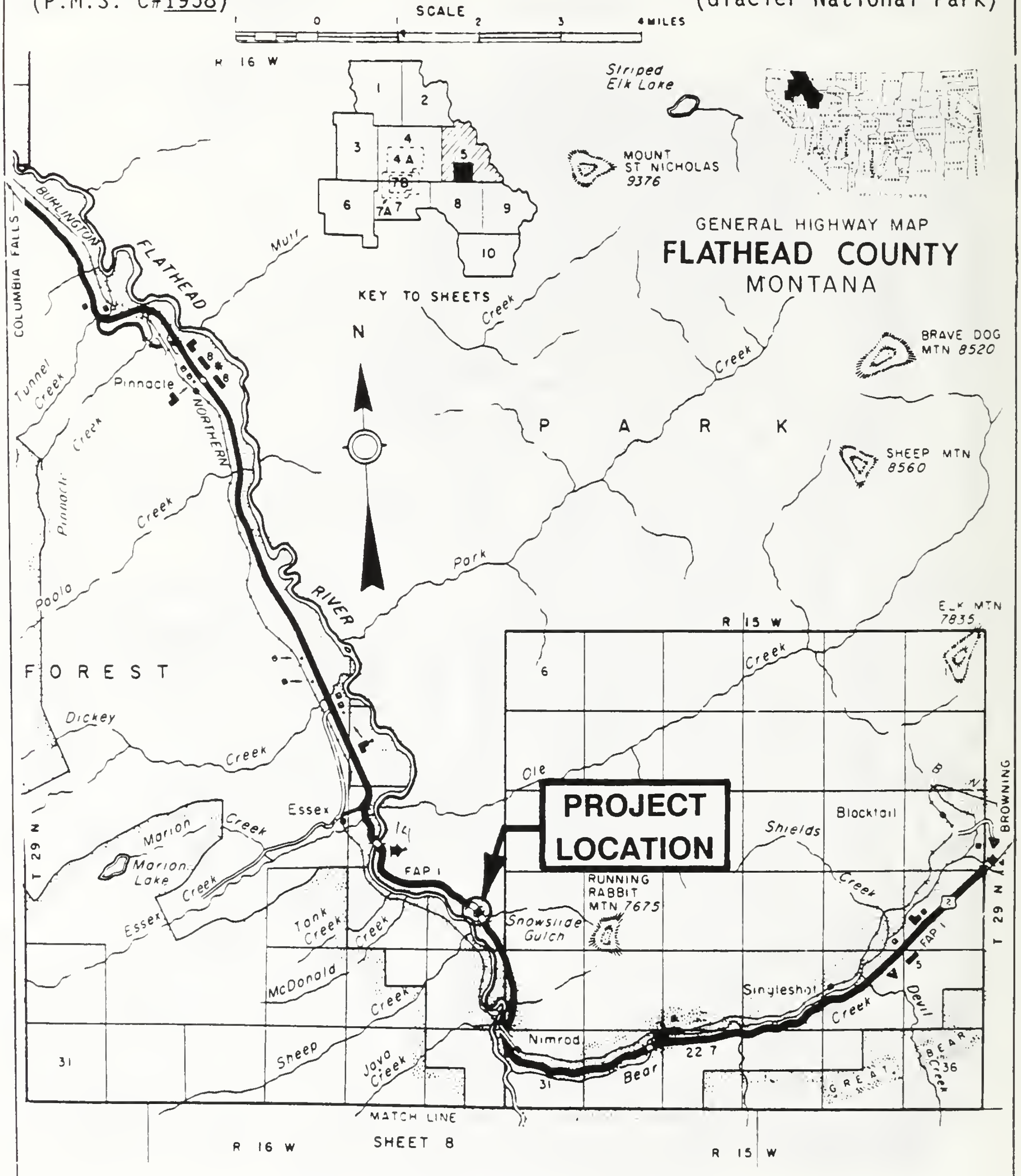


Figure #2 - From Flathead County MDT map.

I.

DESCRIPTION of the PROPOSED ACTION

This proposed action consists of replacing a reinforced-earth ("**r-e**") wall supporting U.S. highway #2 (Federal - Aid Primary/FAP route #1) along the southerly perimeter of Glacier National Park. The proposed project includes excavation work, and placement of a new retaining wall system.

This proposed project is along the southerly (right) side of U.S. highway #2 between stations 1518+28± and 1520+55± (MilePosts/MP's 182.361 to 182.404 on FAP 1) in Flathead County. This is located in the (unsurveyed) NorthWest ¼ of the SouthEast ¼ of Section 24; Township - 29 - North, Range - 16 - West, M.P.M. — and is entirely within Glacier National Park.

This action is considered an "emergency" solution to a complex problem. This portion of FAP 1 is along the Middle Fork of the Flathead River valley in an area of unstable steep slopes with slides being fairly common along both sides of the river. At least three slide zones are visible from this proposed project's location, including below the existing "**r-e**" wall. Slide movements occur at varying intervals depending on seasonal precipitation amounts and the flow of the river.

Major slides have altered the course of the river by creating natural embankments or blocking the main channel. These events have historically been associated with substantial river flows, such as the 1964 and 1975 floods. Other similar events result from avalanches, also common in this proposed project's area. These latter situations depend on snowfall and ambient temperatures, and are usually short-term (seasonal durations) in their effects on the river.

Four alternatives have been proposed for this action, including the "no-action" ("No-Build") alternative. These are described under Part III. **ALTERNATIVES**, following. The environmental effects of these alternatives are described in Part IV. **IMPACTS**.

The proposed work involves constructing a retaining wall behind (inside) the existing "**r-e**" wall. The proposed construction includes 4-foot diameter reinforced-concrete cast-in-place structural piles. These piles will be tied-back from their bases to bedrock with anchors under the existing roadway.

A retaining wall of piles will be poured between the structural piles for the roadway fill. The tops of all piles will then be connected by a capping beam, which will extend 11± feet out on a cantilever section from the pile centers. The beam/cantilever section will carry most of FAP 1's eastbound lane, and a steel guardrail supported by "I"-beams.

The eastbound lane will be on a plant-mix ("asphalt") surface, and the interior (unexposed) face of the capping beam will not be under the normal driving lane's "wheelpath" area. See Figure #3 (below) for this proposed structural pile/ cantilever system's appearance.

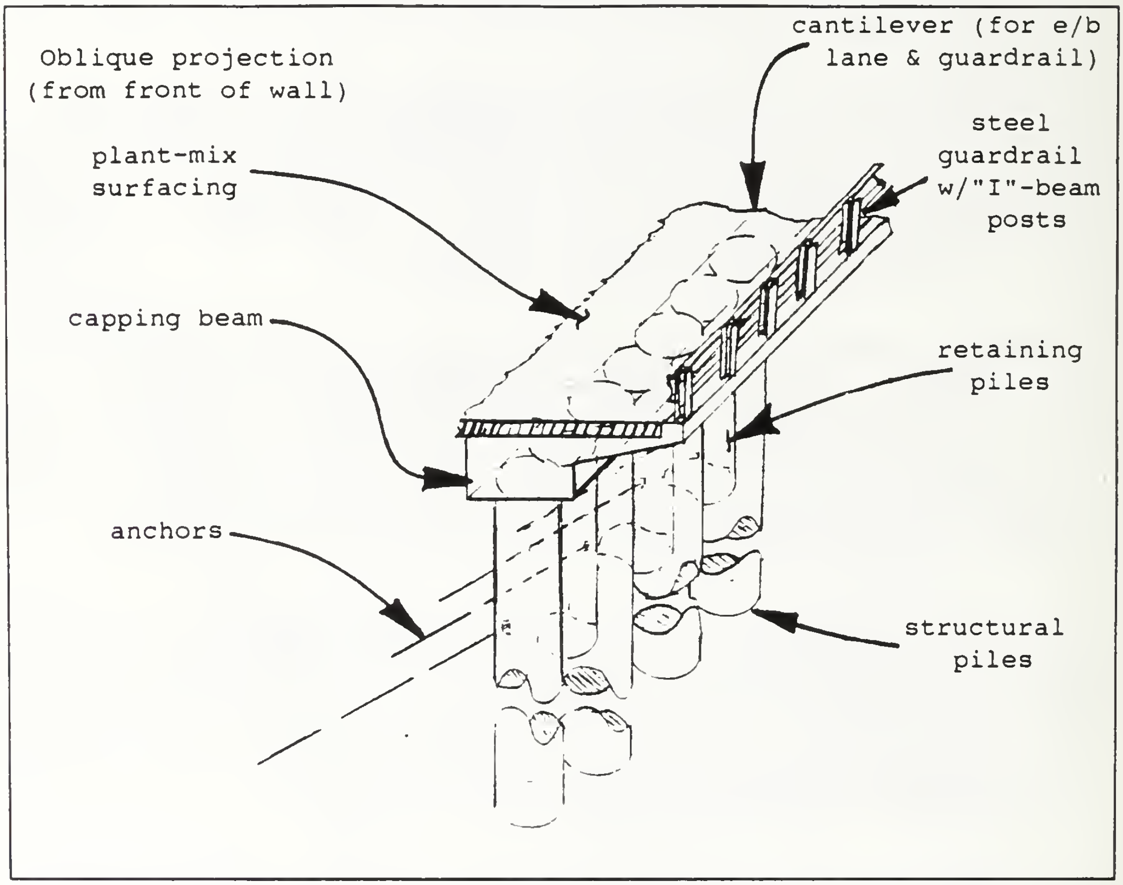

Oblique projection (from front of wall)
cantilever (for e/b lane & guardrail)
steel guardrail w/"I"-beam posts
plant-mix surfacing
capping beam
retaining piles
anchors
structural piles

Figure #3 - Structural piles with capping/cantilever beam, anchors, and pile retaining wall (No Scale).

II.
PURPOSE of And NEED for ACTION

This project has been proposed to replace a portion of the "**r-e**" wall at this location. This "**r-e**" wall was built as part of the FHP 13(3)3 & 4 reconstruction project in 1980 - 81 on FAP 1 within Glacier National Park. This wall is showing signs of stress failure, and the highway's surface also exhibits settlement and diagonal cracking at this same location.

A failure of this "**r-e**" wall and/or the slope below it will force closure of FAP 1 to all through traffic on this route between East Glacier (26.9± route-miles easterly) and West Glacier (29.1± route-miles to the west). This will result in major traffic disruptions, with vehicles being diverted to other east-west primary routes in Montana and the two western Canadian provinces.

U.S. #2 — known as the "Theodore Roosevelt Memorial Highway" in this proposed project's vicinity — is the northern-most FAP route in the nation (none exist in Alaska). Montana has the most FAP 1 mileage of any state on this route with over 665 miles between the Idaho and North Dakota borders. This route has been in nearly continuous use (barring periods of floods, avalanches and repairs for same, or new construction) for over seventy years. U.S. #2 is also the major east-west highway corridor across northern Montana. It is a vital regional link for commercial and emergency services traffic along this corridor, and also serves international carriers to/from Canada.

This highway provides the primary access to Glacier National Park from the U.S., the Great Bear Wilderness, the Flathead Wild & Scenic River system, and the northerly portions of the Lewis & Clark and Flathead National Forests. It is the only direct access from the Blackfeet Indian Reservation to the west that is open to all traffic all year. It also is critical for management activities within and between these adjoining jurisdictions.

Table I - Current and Future Traffic — U.S.#2
(FAP 1 @ MP. 182.4±)

CURRENT & FUTURE TRAFFIC

Year	All Traffic	Commercial Traffic
1991	1200	95
2011	1800	142

(NOTE: Figures shown are in Average Daily Traffic/ ADT amounts.)

This portion of FAP 1 also parallels the Burlington Northern RR's main line, a Montana Power Co. gas transmission line, and a telecommunications microwave repeater system. This route provides the only major vehicle access to these transportation, utility, and communications networks in this area.

Although a sudden, catastrophic collapse of the wall and/or slope below it is not likely to occur, there is a chronic inherent risk of this situation developing. The environmental consequences of such an event are described under Part IV. **Impacts**, following. These consequences will result under the "No Build" Alternate described under the following Part III. **Alternatives**. Three "Build" Alternates listed under this same Part III were developed to avoid long-term disruptions to traffic on FAP 1, and restrict impacts to the environment in this area.

This Environmental Assessment document is developed in compliance with the *National Environmental Policy Act*, **42 U.S.C. 4332(2)(C)**, as applied to the U.S. DEPARTMENT OF TRANSPORTATION's Federal Highway Administration (FHWA) under 23 CFR 771.119. This document is also prepared in compliance with the *Montana Environmental Policy Act*, **M.C.A. 75-1-201**, for the MONTANA DEPARTMENT OF TRANSPORTATION (MDT) under ARM 18.2.239.

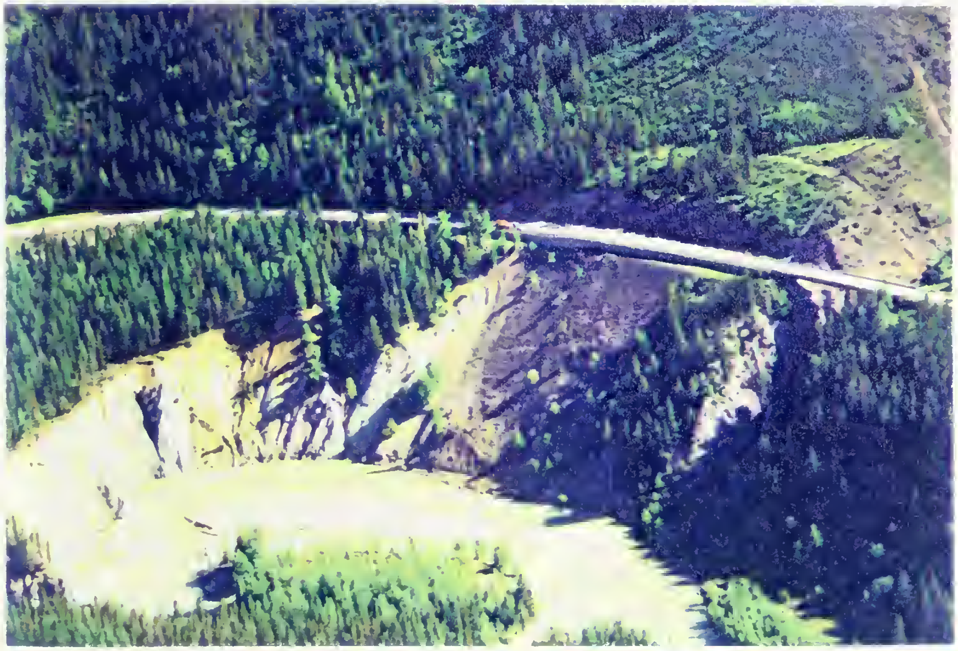


Photo I. *Oblique view of Project Area - looking easterly.* (Photo Date: June 18, 1991)

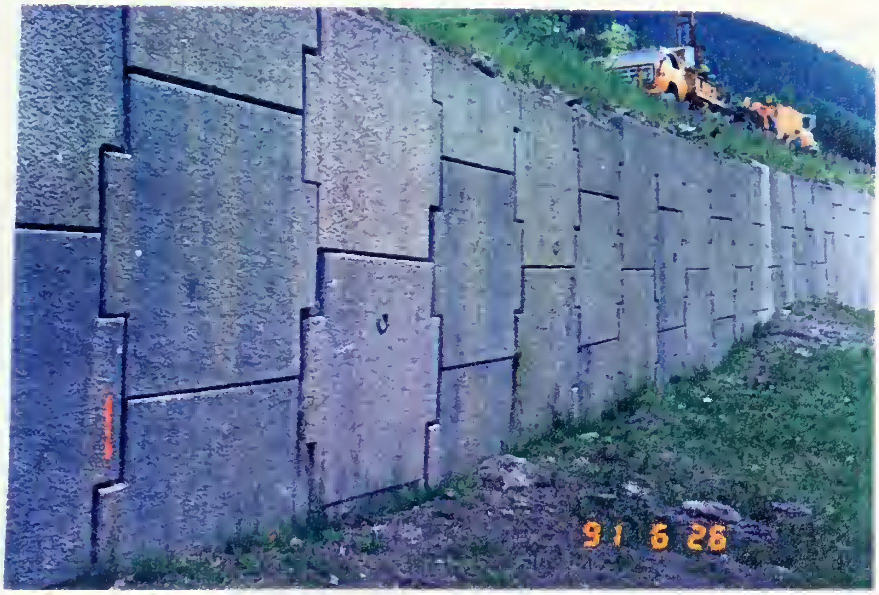


Photo II. *Reinforced-Earth Wall - looking south-easterly.* (Photo Date: June 26, 1991)

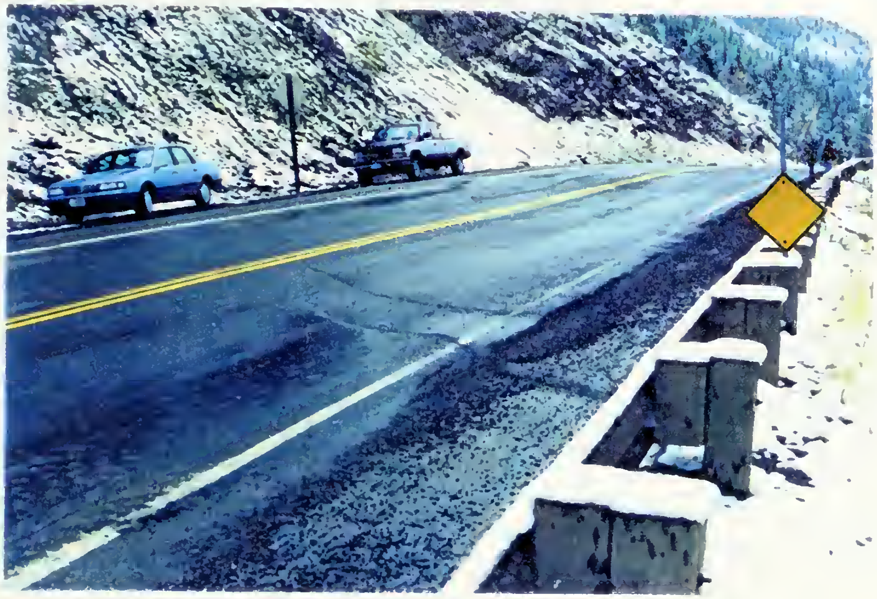


Photo **III.** *U.S. #2 @ Project Area - looking southeasterly.* (Photo Date: October 28, 1991)

Photo **IV.** *Middle Fork of the Flathead River - looking westerly from base of* "**r-e**" *wall.* (Photo Date: October 28, 1991)

III.
ALTERNATIVES

Two basic alternatives are being considered for this proposed project — "Build" and "No Build". The former has three variants regarding its implementation. These alternatives are shown on Figures #4 through #8, and described as follows:

"No-Build" ALTERNATIVE.

As the name implies this Alternate has no construction involvement. This Alternate allows only for routine maintenance of the existing route. There is no work done to correct the current slide conditions other than attempts to repair the highway surface. This situation has essentially been in effect since the completion of the present "**r-e**" wall and highway route.

Alternate "**A**" - RELOCATE HIGHWAY CLOSER TO THE HILLSIDE (away from the existing "**r-e**" wall).

This Alternate shifts the present FAP 1 route's centerline a maximum of 35± ft. to its left (NorthEasterly) side. This will require two reverse curves (one at each end of the alignment shift), and a steep (1:1) cut slope.

A revised (widened) approach to the southeasterly end of the goat overpass bridge will also be required. The amount of excavation required is 12,000± cubic yards (yd.^{3}), and the total estimated cost of this Alternate is $675,000. Figure #4 shows a plan view, and Figure #5 shows a typical section of this Alternate.

Alternate "**B**" - CONSTRUCT A NEW RETAINING WALL WITH A CANTILEVER ROADWAY SECTION BEHIND THE EXISTING "**R-E**" WALL.

MDT considers this as being the *Preferred* Alternate for this proposed action. This Alternate involves constructing a cantilever and pile wall system, and is described under Part I, preceding. The existing "**r-e**" wall and fill will be removed following construction of the structural and retaining wall piles.

The total estimated cost of this Alternate is $1,216,000. Figure #6 is a plan view with its construction sequence, and Figure #7 shows typical sections of the existing "**r-e**" wall and the proposed new pile wall/cantilever system.

Alternate "C" - CONSTRUCT A BRIDGE OVER THE SLIDE.

This Alternate involves constructing piers on caisson (structural) piles at each end of, and a one-span bridge over the slide zone. A 12± ft. (minimum) deep excavation removes the existing "**r-e**" wall and fill. The bridge may be either a cast-in-place, or a precast concrete beam type.

The National Park Service (NPS) initially preferred this Alternate. However, following a meeting between the NPS, MDT, and the consultant specializing in slide problems on October 1, 1992 — the NPS has since concurred with MDT's *Preferred* Alternate "**B**" selection.

Total estimated costs for this Alternate are $1,495,000 for the cast-in-place bridge, or $1,285,000 for the precast version. Figure #8 shows the proposed bridge, and describes the construction sequence for this Alternate.

A fourth "build" alternate involving construction of streambank protection along the Middle Fork of the Flathead River was also initially proposed. This alternate left the existing "**r-e**" wall in place and involved lining the right (northeasterly) bank of the Middle Fork of the Flathead River with "riprap".

However, this reach of the river is an element of the National Wild & Scenic River System. The environmental impacts resulting from such work in and along the river caused it to be dropped from further consideration for this proposed project.

The seven Figures showing these Alternates begin on the following page.

Alternate "A"

F 1 - 2(59)182
(P.M.S. C#1958)

GOATLICK SLIDE
(Glacier National Park)

RELOCATE HIGHWAY CLOSER TO THE HILLSIDE
(away from the existing "**r-e**" wall).

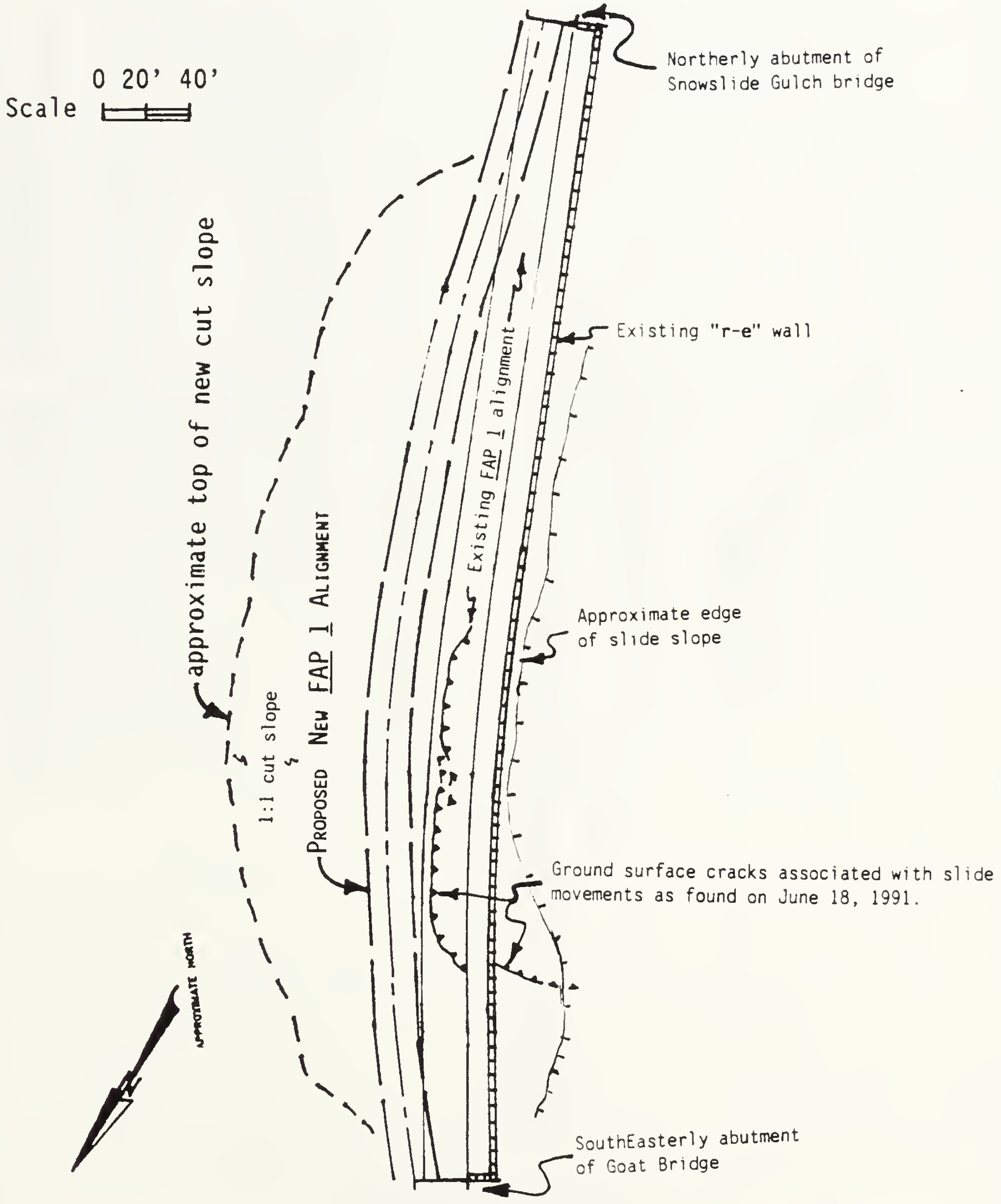

0 20' 40'
Scale
Northerly abutment of Snowslide Gulch bridge
approximate top of new cut slope
Existing "r-e" wall
Existing FAP 1 alignment
Proposed New FAP 1 Alignment
1:1 cut slope
Approximate edge of slide slope
Ground surface cracks associated with slide movements as found on June 18, 1991.
APPROXIMATE NORTH
SouthEasterly abutment of Goat Bridge

Figure #4 - Plan View.

Alternate "A"

F 1 - 2(59)182
(P.M.S. C#1958)

GOATLICK SLIDE
(Glacier National Park)

RELOCATE HIGHWAY CLOSER TO THE HILLSIDE
(away from the existing "**r-e**" wall).

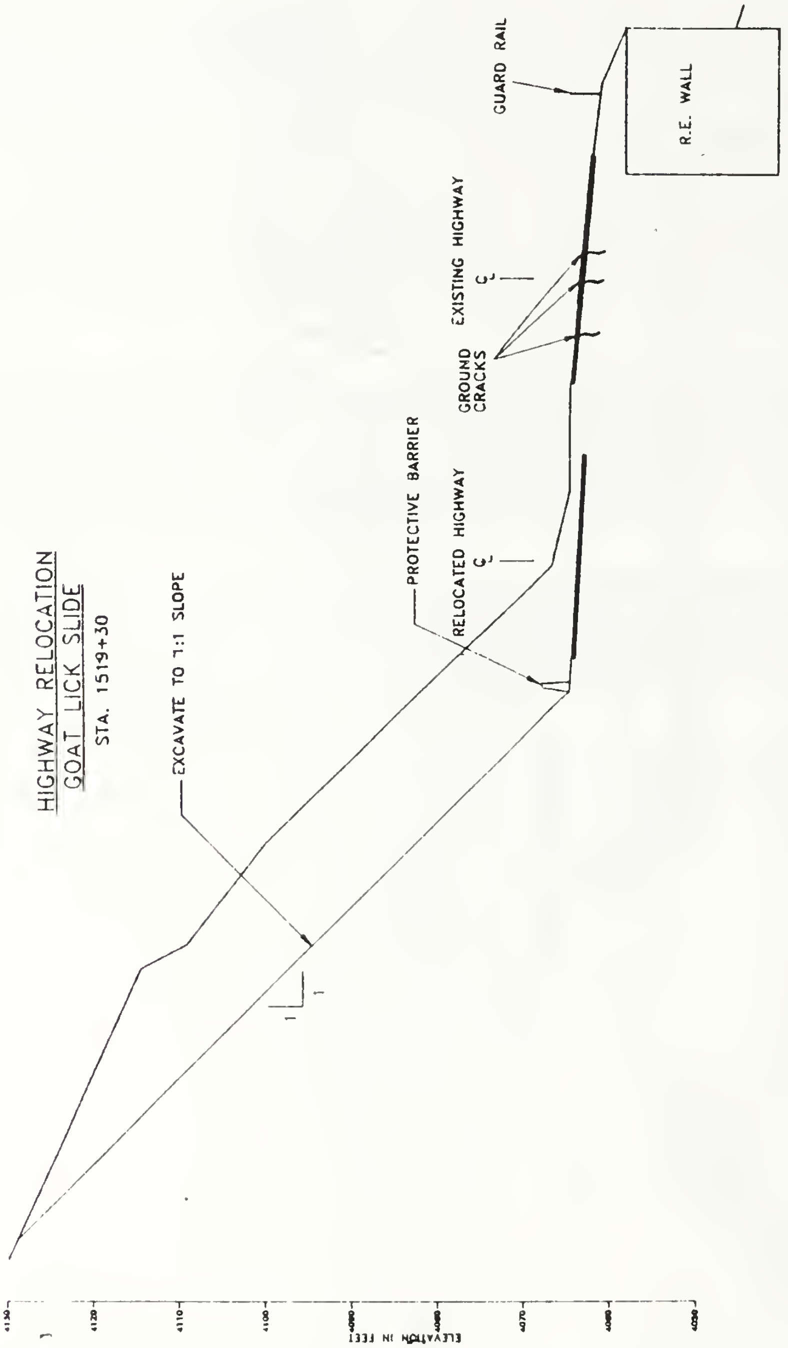


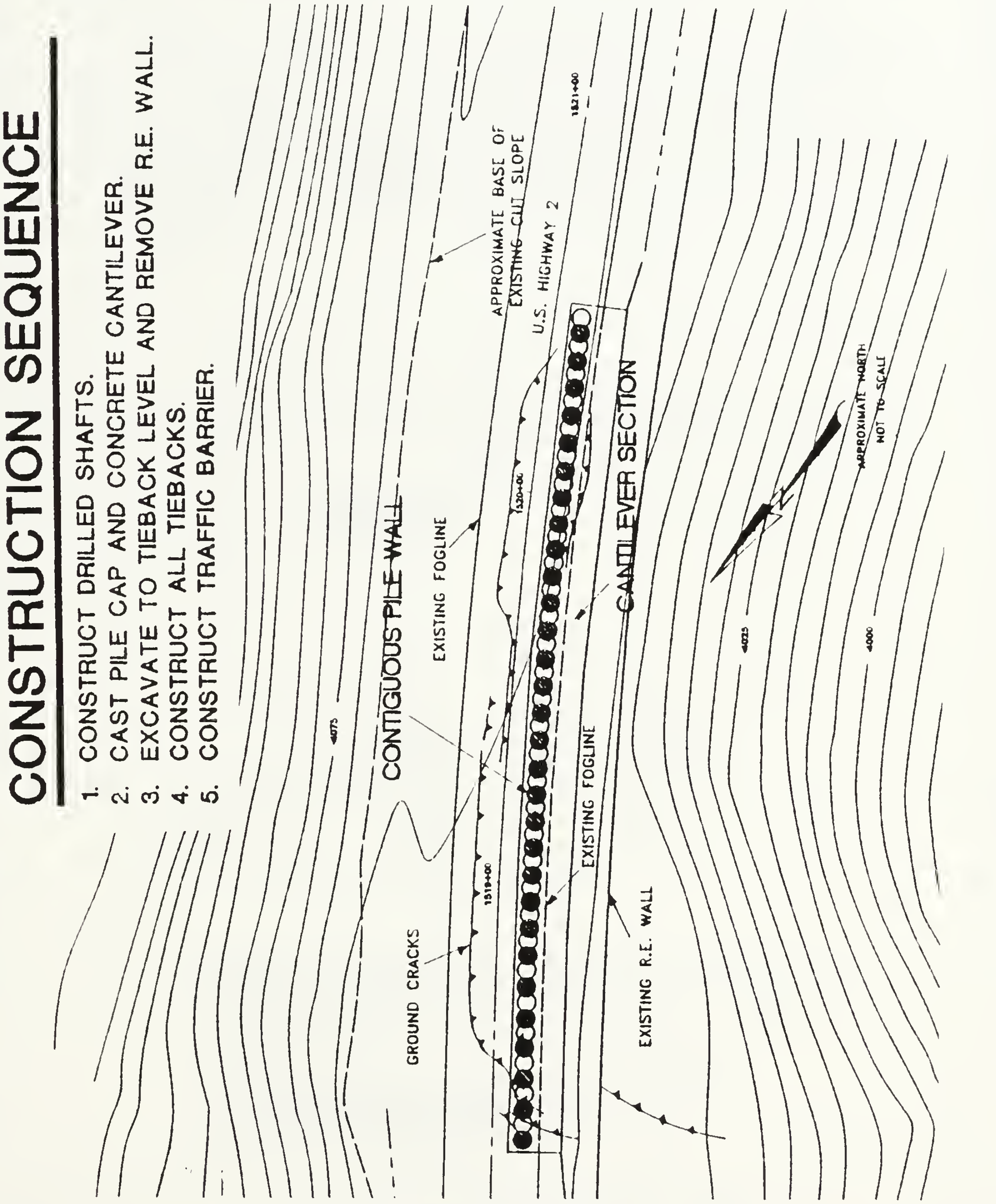
Figure #5 - Typical Section.

Alternate "B"

F 1 - 2(59)182
(P.M.S. C#1958)

GOATLICK SLIDE
(Glacier National Park)

CONSTRUCT A NEW RETAINING WALL WITH A CANTILEVER ROADWAY SECTION BEHIND THE EXISTING "R-E" WALL.



CONSTRUCTION SEQUENCE

1. CONSTRUCT DRILLED SHAFTS.
2. CAST PILE CAP AND CONCRETE CANTILEVER.
3. EXCAVATE TO TIEBACK LEVEL AND REMOVE R.E. WALL.
4. CONSTRUCT ALL TIEBACKS.
5. CONSTRUCT TRAFFIC BARRIER.

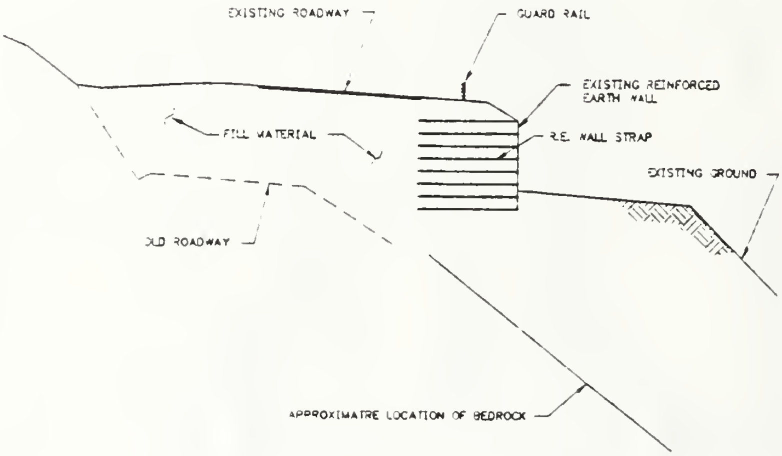
Figure #6 - Plan View.

Alternate "B"

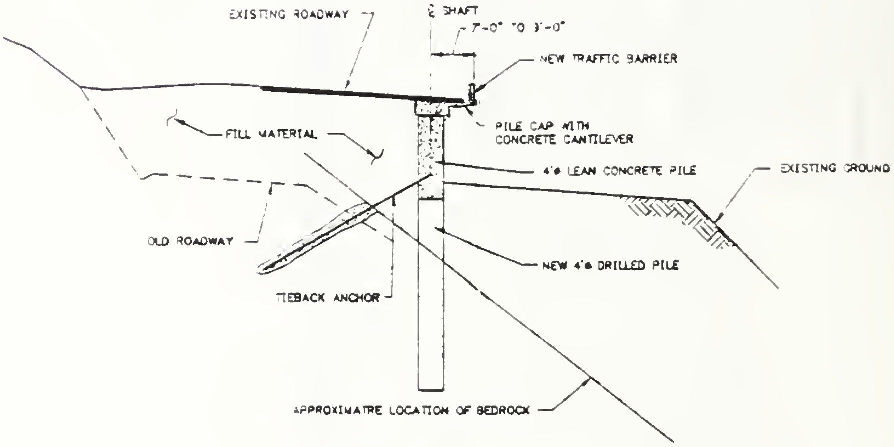
F 1 - 2(59)182
(P.M.S. C#1958)

GOATLICK SLIDE
(Glacier National Park)

CONSTRUCT A NEW RETAINING WALL WITH A CANTILEVER ROADWAY SECTION BEHIND THE EXISTING "R-E" WALL.



CROSS SECTION OF
EXISTING ROADWAY
STA. 1518+70



CROSS SECTION OF ROADWAY WITH
DRILLED SHAFT WALL AND TIEBACK
STA. 1518+70

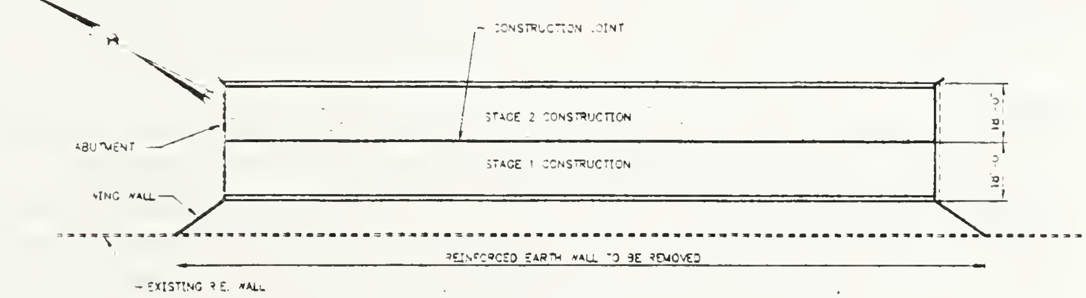
Figure #7 - Typical Section.

Alternate "C"

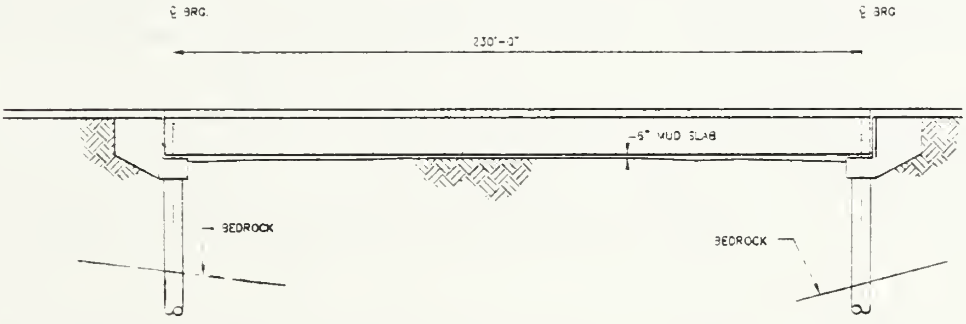
F 1 - 2(59)182
(P.M.S. C#1958)

GOATLICK SLIDE
(Glacier National Park)

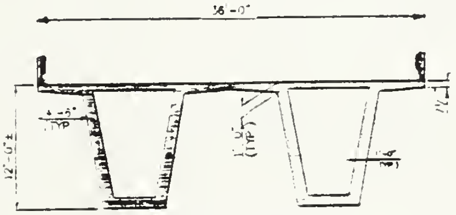
CONSTRUCT A BRIDGE OVER THE SLIDE.



PLAN



ELEVATION



TYPICAL SECTION

CONSTRUCTION SEQUENCE

1. EXCAVATE WEST HALF OF ROADWAY TO 6" BELOW BOTTOM SLAB AND REMOVE R.E. WALL.
2. DRILL AND CAST CONCRETE SHAFTS AT NORTH AND SOUTH ABUTMENTS.
3. CONSTRUCT ABUTMENT CAP BEAMS AND WEB WALLS.
4. POUR 6" MUD SLAB.
5. CONSTRUCT SUPERSTRUCTURE OVER MUD SLAB (CIP OPTION). ASSEMBLE ALL PRECAST SEGMENTS ON MUD SLAB. (P.C. OPTION)
6. POSTTENSION WEST HALF OF BRIDGE.
7. CAST BARRIER AND OPEN FOR TRAFFIC.
8. USE SAME PROCEDURE FOR SECOND HALF OF ROADWAY.

Figure #8 - Plan/Side Views, w/Typical Section.

IV.
IMPACTS

The four alternatives described previously (under Part III) will have varying levels of impacts on the environment. The impacts from each of these Alternates are listed as follows:

1. Visual

   Glacier National Park in general is noted for its spectacular views, depending on prevailing weather conditions and amount of daylight. However, this proposed project is located in a part of the Park that is not regarded as one of its most scenic areas. This area is characterized by steep slopes with some timber cover (primarily on the southwesterly side of the river) interspersed with slide zones (as previously described under Part I.). These slides, such as the one at this proposed project's location, are usually either covered with scrub or bare rock/"talus" slopes. The slopes of Running Rabbit Mountain above this location (see Figure #2, previous) are barren of substantial vegetation cover.

   The two basic forms of visual impacts are the "View from", and the "View of" the proposed project's area. Glacier National Park officials do not regard obstructing this "View from" the highway as being a negative impact. Vehicle traffic tends to become restricted when groups of pedestrians and bicyclists are gathered along this portion of U.S. #2. The resulting traffic flow impedance is made more unsafe by the restricted visibility on the vertical curve crest section at this location. Therefore, while each of the three "build" alternatives have some impact on the "View from" this proposed project's location, these impacts are regarded as beneficial in terms of reducing traffic "bottleneck" situations.

   The "No-Build" Alternative initially has the least visual impacts in both forms. The continual patching of the present highway is the most obvious of these, followed by the sagging road surface and distorted "**r-e**" wall panels. This alternate has virtually no impact on the "View from" the proposed project's area at present. However, given the continual slide movement and consequent distress of both the roadway and "**r-e**" wall, the visual impacts will become more pronounced over time. This applies to both "View from" and "View of" aspects. A major failure of the "**r-e**" wall, the slope below it (down to the Middle Fork of the Flathead, 280± ft. below), or both will result in substantial visual impacts on both forms.

   A. "View from" Visual Impacts

      Alternate "**A**'s" most obvious impact on the "View from" this proposed project's area is made by moving FAP 1 closer to the hillside. This action partially obscures the view down to the river seen by the travelling public.

This portion of U.S. #2 is signed for "No Parking". However, pedestrians and bicycles tend to collect at this site. This gives the closest view of Mountain Goats at the mineral (salt) lick area 500± to 600± ft. to the west-southwesterly. Alternate "**A**" restricts that view by moving FAP 1 farther away from the river. Trees and shrubs at the north-northwesterly end of this proposed project's area will also tend to obstruct the view.

Alternate "**B**" has the least impact on the "View from" this proposed project's area. The top of the proposed steel guardrail at the end of the cantilever beam will be about 2.15± ft. above the pavement. This is about the same height as the existing (similar) rail above the current "**r-e**" wall. However, the travelling public's view will be slightly more obscured than at present as the cantilever beam will be higher than top of the "**r-e**" wall.

Alternate "**C**" has a minor impact similar to that for Alternate "**B**" on the "View from" the proposed project. The bridge rail has a total height of about 1.75 ft. above the deck. This rail is also closer to FAP 1's centerline than Alternate "**B**'s". The 0.4± ft. difference in heights and shorter distance from the centerline presents a better view from this Alternate. However, as mentioned previously, this will result in a higher potential for traffic flow disruptions and subsequent unsafe driving situations.

B. "View of" Visual Impacts

The view of the new FAP 1 alignment on Alternate "**A**" includes the reverse curves at either end of the proposed project's area, and the road moving closer to the hillside. The new alignment will also have a new plant-mix surface. This view of Alternate "**A**" from areas outside the proposed project's vicinity include the following locations:

a) the GoatLick Viewing Area 750± ft. southerly of (and across Snowslide Gulch from) this site and the vicinity adjacent to this Area;

b) the Middle Fork of the Flathead River;

c) the Flathead National Forest property on the opposite bank of the Middle Fork of the Flathead River (including the Sheep Creek Trail); and

d) the Burlington Northern (BN) RR.

Impacts will decrease proportionally with distance, and inversely with the amount of intervening vegetation. The present "**r-e**" wall has been in place for over ten years, and Alternate "**A**'s" most noticeable visual impact will be the higher cut-slope to the northeast of FAP 1.

Alternate "**B**" has a greater impact on the "View of" this proposed project's area as the existing "**r-e**" wall is removed and replaced by the pile retaining wall and cantilevered beam system. However, the cantilever overshadows the pile retaining wall. Therefore, it's overall appearance will be less noticeable than the present concrete panels on the "**r-e**" wall. This will be particularly evident when seen from the Goatlick Viewing Area, and the Middle Fork. The concrete surface at the end of the cantilever portion will be treated and colored in a manner to match the present slide zone.

Alternate "**C**" will have a visual impact analogous to "**B**'s" in that the entire "**r-e**" wall will be removed and replaced by a bridge. The overshadowing effect will be similar, however, the bridge beams may be more obvious depending on their depths. This results in increased visual impacts as seen from below in the areas described previously. A concrete bridge deck is also a greater visual change as the pavement on the other Alternates is plant-mix surfacing (*"blacktop"*).

2. Geotechnical

The "No-Build" Alternate initially has virtually no impacts on the geologic characteristics of this slide area. However, a collapse of the existing "**r-e**" wall, the slope below it, or both will result in further and extensive slope failures in this area. Due to the nature of the soil on this slope, and its steep angle down to the river, stabilization with vegetation and/or screening barriers are neither practical nor safe for those attempting same.

Alternate "**A**" is an attempt to avoid the slide area below the "**r-e**" wall in the immediate area of the proposed project by shifting the alignment of FAP 1. However, this will not prevent future instability of the surface of the slope below this area. Investigations by MDT Materials Bureau geologists and consultants indicate that the potential for the slide to continue remains a risk. Should the slide motion accelerate, Alternate "**A**" avoids a sudden, catastrophic collapse of the roadway. However, further extensive corrective measures will be necessary in that event.

Alternate "**B**" provides a stable support for FAP 1 over this proposed project's area. Setting the structural piles bases below the slide zone allows a firm foundation. Anchoring their upper sections provides additional support for both the cantilever beam and the fill behind the pilings. These measures will make a sudden, catastrophic collapse of the roadway very unlikely.

The bridge spanning the slide zone is also a means of providing roadway stability under Alternate "**C**". Although the anchoring of the bridge pier pilings below the slide zone prevents a collapse, this Alternate involves more excavation and a subsequently higher cost over Alternate "**B**".

In time, the implementation of the "riprap" alternative may become necessary depending on the characteristics of the river. The river's erosion characteristics will depend on precipitation amounts and flood events which are beyond the scope of this proposed project.

3. Air Quality Impacts

Impacts on Air Quality from the "No-Build" Alternate are not significant as no construction is necessary. However, a sudden, catastrophic collapse of the present "**r-e**" wall, the slope below it, or both would result in a large amount of dust particles in this proposed project's vicinity. The amount and duration of the event would be limited by factors such as ground saturation, precipitation, and wind direction at the time of occurrence. At most such an event could trigger other slides in the area. However, Air Quality impacts would not be of a long duration and would be confined to this immediate vicinity.

Air Quality impacts from the "Build" Alternates are related to the amount of construction work needed for each. Contractors are licensed in accordance with the MONTANA DEPARTMENT OF HEALTH & ENVIRONMENTAL SCIENCE's (MDH&ES's) Air Quality Bureau. Therefore the Air Quality impacts during either "Build" Alternate's construction will be controlled by their guidelines. These impacts will be of short duration (limited to periods of actual excavation /fill, or concrete finishing work) and confined to the proposed project's site.

Additional, short-term Air Quality impacts will result from the detour necessary for the "Build" Alternates. A gravel fill for detouring traffic around the excavation area during the "**r-e**" wall's removal, and construction of Alternates "**B**" or "**C**" will allow two-way traffic during this period. The surface of this detour will be treated with a lignia sulfunate biodegradable dust palliative.

This proposed project is located in an "unclassifiable"/air quality attainment area of Montana under 40 CFR 81.327. As this type of project has no impact on regional emissions according to the June 7, 1991 USDoT & EPA INTERIM GUIDANCE FOR THE CLEAN AIR ACT AMENDMENTS — Section 6.2 and the APPENDIX — a carbon monoxide (CO) analysis will not be necessary. Therefore, this proposed project complies with the 1990 *Clean Air Act Amendments* (**23 U.S.C. 176(c)**) during "PHASE I" of the "INTERIM PERIOD".

The MDH&ES's Air Quality Bureau was notified of this proposed project. A copy of their letter of response follows in Part VI., the APPENDIX to this Environmental Assessment.

4. Water Quality Impacts

The "No-Build" Alternate initially has little or no impact on water quality. However, as with the Air Quality impacts, preceding, a subsequent failure of the "**r-e**" wall will cause a major degradation of water quality in this area. The slope below the "**r-e**" wall leads directly to the Middle Fork of the Flathead River. Therefore any failures of this slope and/or the "**r-e**" wall will impact this reach of the River.

A secondary impact from a major failure of the slope will be an encroachment in, or complete blockage of the river's channel. This will require emergency action including substantial work in the river channel itself to prevent the collapse of the "dam" created by a major slide. Such a sudden collapse has the potential for creating a "flash flood" situation downstream.

Non-point water pollution sources for all "Build" Alternates are related to the amount of construction needed for each. The roadway above the "**r-e**" wall at this proposed project's location drains to either side of the centerline. Installation of temporary silt fences across the lower end of the ditch on the left (northeasterly) side, and along the top of the "**r-e**" wall portions not being removed on FAP 1's right side will aid in controlling the non-point source pollution during construction.

All "Build" Alternates will have impacts on water quality in the immediate vicinity. However, these will be minor both in scope and duration by employing erosion control measures (ecm's), and the limited period of actual construction. The ecm's will be restricted, however, due to the steep slope making installation of same very hazardous to construction workers (see Section 5. Erosion Control & Seeding Impacts, following).

There are no sources of potable water or aquifers providing same in the vicinity of this proposed project.

5. Erosion Control & Seeding Impacts

All work on this proposed project will be in accordance with Section **208.03** of the (former) Montana Department of Highways (MDOH) and Montana Highway Commission (MSHC) **STANDARD SPECIFICATIONS for ROAD CONSTRUCTION** manual of 1987 regarding erosion control measures.

(5. Erosion Control & Seeding Impacts - conclusion:)

The Seeding Special Provisions for this proposed project are as follows:

SEEDING SPECIAL PROVISIONS

AREA DESCRIPTIONS

All areas disturbed by construction

SEEDBED PREPARATION REQUIREMENTS

See Sections **210.02(J)**, **(K)**, and **610.13(B)** *Condition Seedbed Surface* in the (former) MDOH/MSHC 1987 **Standard Specifications for Road & Bridge Construction.**

SEEDBED APPLICATION

Method	Seeding Depth	Season of Seeding
Scarified and Broadcast	¼" to ½" deep	Oct 15 through May 20th

MULCH REQUIREMENTS

2000 pounds (Lbs.) of wood fiber plus "tackifier"

FERTILIZER APPLICATION

Year of Seeding (Lbs. per Acre)

Nitrogen	P205
None	30 min 35 max

SEED MIXTURE

Species	Lbs. PLS Per Acre	*Substitute Species	Lbs. PLS Per Acre
(a) *Thickspike Wheatgrass*	3	(a) *Western Wg.*	3
(b) *Idaho Fescue*	4	(b) *Slender Wheatgrass*	4
(c) *Secar Bluebunch Wg.*	4	(c) *Mountain Brome*	4

*Individual substitute species shall be used only if the recommended species is not available, and substitution is approved by the project engineer. Substitute (a) for (a), (b) for (b), etc.

6. *Section 4(f)* Impacts (*U.S.D.o.T.* Act)

The 1966 *U.S. Department of Transportation Act, Section 4(f)* (currently under **49 U.S.C. 303**) provides specific protection for any significant publicly-owned park. This *Act* preceded the adoption of the *National Environmental Policy Act* of 1969, and requires a separate evaluation of protected areas. However, the *Surface Transportation and Uniform Relocation Assistance Act* of 1987 (**P.L. 100-17**) exempts work on roads located within or providing access to national parks from the provisions of *Section 4(f)*. Therefore, none of the "Build" Alternates will require a separate *Section 4(f)* evaluation.

Any work in the Middle Fork of the Flathead River — an element of the National Wild & Scenic Rivers system (this segment is managed by the Flathead National Forest) — will require evaluations for *Section 4(f)* under **49 U.S.C. 303(c)**, and the *Wild & Scenic Rivers Act - Section 7(a)* (**16 U.S.C. 1271 - 1287**). No such work is planned at this time under this proposed project.

7. Hazardous Wastes Impacts

The only known source of hazardous wastes for this proposed project are associated with the "Build" Alternates. These are the fuels, lubricants, hydraulic fluids, and related items needed for the contractor's equipment and vehicles.

A consultant specializing in hazardous waste remedial actions has been retained by MDT to monitor this proposed project. A contingency plan has been adopted for cleaning-up any accidental spills, or related emergency situations (accidents such as a spill from a detouring truck, etc.). This plan includes specific recommendations for the handling of all construction and equipment materials. A copy of this plan follows Part VI. of this Environmental Assessment.

8. Threatened/Endangered Species Impacts

Three Federally-listed Endangered Species, and one Federally-listed Threatened Species were identified in this proposed project's vicinity. This information was provided by the U.S. DEPARTMENT OF THE INTERIOR'S Fish & Wildlife Service (F&WS) in a letter dated December 11, 1991. The F&WS is one of the three Cooperating Agencies in this document due to their "special expertise" in the identification of, and jurisdiction over impact determinations to Federally-listed Threatened/Endangered (T & E) species.

These four T & E species are as follows:

Bald Eagle (*Haliaeetus leucoephalus*) endangered;

Northern Rocky Mountain Wolf (*Canis lupus*) endangered;

Peregrine Falcon (*Falco peregrinus*) endangered; and

Grizzly Bear (*Ursus arctos horribilis*) threatened.

The following **Conservation/Coordination Measures** for avoiding impacts to T & E species by this proposed project are Required in the **Biological Resources Report**, which follows Part VI, the APPENDIX of this Environmental Assessment:

Bald Eagle

Prior to the onset of construction, the Project Manager shall contact an MDT and/or the project biologist (described under Part V., **Comments & Coordination**, following) to assess the overall status of nesting bald eagles in the proposed project's area. Spacial, and/or temporal restrictions may be implemented at bald eagle nests established in this area prior to construction.

Grizzly Bear

Garbage will be disposed in "grizzly-bear-proofed" NPS-approved containers, which will be removed on a daily basis.

(8. Threatened/Endangered Species Impacts, **Conservation/Coordination Measures** Grizzly Bear - conclusion:)

Spills, litter, etc., will be cleaned-up promptly. Potential attractants, such as anti-freeze and petroleum products, will be stored and secured from all animals in a manner that will not attract same.

All personnel working on this proposed project will be provided education/training on bear safety, working in an environmentally-sensitive area, etc.

Rocky Mountain Wolf

The project manager shall contact an MDT and/or the project biologist to assess the overall status of wolves in this proposed project's area prior to the onset of construction. Spacial, and/or temporal restrictions may be implemented near dens established in this area prior to construction.

This proposed project will have "no effect" on the peregrine falcon, and a "not likely to adversely effect" on the other three T & E species under the preceding **Coordination/Conservation Measures**. The F&WS has reviewed the DRAFT version of the **Biological Resources Report**, and concurs with its findings of effects on these T & E species.

9. Plant & Wildlife Impacts

This proposed project's vicinity includes habitat for several Rare & Sensitive Plant/Wildlife species. These are identified in Table II. on the following page. Due to the steep and rocky terrain, and the fact that this is in an area disturbed by the previous FHP 13(3) project's construction, any impacts to these Rare & Sensitive Species will be minimal. This proposed project's area will be surveyed for these species by either an MDT or the project's biologist prior to construction as a **Conservation** measure. Any Rare & Sensitive Plant Species impacted by this proposed project will be temporarily stored for replanting, or relocated in an area suitable for continued growth.

As this proposed project is within a National Park, there are large amounts of other wildlife in both game and non-game species in the area. A description of these, and additional common plant species for the area is in the **Biological Resources Report** following Part VI, the APPENDIX. This proposed project is confined within a small area of just over ⅓± of an acre of actual construction for any of the "Build" Alternates. Therefore, its impacts on these plant and wildlife species will be minimal in scope, and limited in duration.

- Table II -
Rare & Sensitive Species in the Proposed Project's Vicinity

Species	Common Name	Scientific Name
bird	Boreal Owl	*Aegolius funerius*
"	Common Loon	*Gavier immer*
"	Harlequin Duck	*Histrionicus histrionicus*
reptile	Couer d'Alene Salamander	*Plethodon vandykei idahoensis*
mammal	Western Big-Eared Bat	*Plecotus townsendii*
plant	Adder's Tongue	*Ophioglossum vulgatum*
"	Beechfern	*Thelypteris phegropteris*
"	Crazyweed (spp.)	*Oxytropis columbiana*
"	Fringed Onion	*Allium fibrillum*
"	Geyer's Lomatium	*Lomatium geyeri*
"	Maidenhair Spleenwort	*Asplenium trichomanes*
"	Northern Golden-Carpet	*Chrysosplenium tetrandum*
"	Sapphire Rock-cress	*Arabis lyrata*
"	Spurred Gentian	*Halenia deflexa*
"	Velvetleaf Blue-berry	*Vaccinium myrtilloides*

This proposed project's impacts on Rare & Sensitive Wildlife Species will be temporary in nature, and minimal in scope.

The primary wildlife concern in this immediate vicinity are the Mountain Goats (*Oreamnos americanus*). The cliff above the river approximately 500 to 600 ft. west-southwesterly of this proposed project is high in mineral (salt) content. The goats migrate down to this cliff between the Spring and Fall months and provide a unique sight for travellers along the highway and river. The bridge at the northwesterly end of this proposed project was built specifically as a crossing for goats migrating between the cliff and their range in the mountains to the north.

(9. Plant & Wildlife Impacts - conclusion:)

Conservation/Coordination measures in the **Biological Resources Report** to minimize impacts on goats by this proposed project include the following:

> No machinery will be operating, the work areas will be unoccupied, and all activities within the vicinity of this proposed project will cease during the periods of 05:00 - 07:30hrs and 18:00 - 22:00hrs, local (Mountain) time. These time periods coincide with the most frequent occurrences of goats in this vicinity, and will be subject to revision only through coordination between the project's and MDT's biologists, and the NPS.
>
> Vehicles not directly engaged in construction activities on this proposed project will be parked in the GoatLick Viewing Area parking lot, or other areas outside this vicinity as designated by the project's biologist and as approved by the NPS.

The Middle Fork of the Flathead River is a pristine habitat for a variety of common and rare fish species. These are found in the **Biological Resources Report** following Part VI. Employing the ecm's (see Items #4 Water Quality, and #5. Erosion Control & Seeding, previous) will minimize water quality degradation impacts on all fish species.

The "No-Build" Alternate will have no initial impacts on any of these Plant, Wildlife, and/or Fish species. However, as with the previous "No-Build" impacts, a failure of the existing "**r-e**" wall and/or the slope below it will cause loss of both riparian and upland habitat. This loss of habitat will be confined to the area within and below the proposed project's location. Mountain Goats will be the most affected due to the close proximity of the project site to their "salt"-lick and migratory areas for same.

All "Build" Alternates will have some minimal impact on natural habitats. These impacts will be limited to the duration of the construction season (June to November), and confined to the immediate vicinity of this proposed project. None of these "Build" Alternates will result in the permanent substantial loss of habitat for any fish/wildlife species in this area.

10. Construction Impacts

No construction-related impacts will result from the "No-Build" Alternate. The "Build" Alternates all have some impacts from construction on the proposed project's area. All construction-related impacts will be limited in duration to the period of June - November (except for the hours of no activity as specified under Item #8, previous).

(10. Construction Impacts - conclusion:)

These impacts will result from placing machinery and materials on the present FAP 1 route in the project's immediate vicinity, using the GoatLick Viewing Area parking lot as a "staging area" for contractor's equipment and materials, and noise/air quality impacts associated with machinery operation and the temporary traffic detour (see Item #3, previous).

All equipment and vehicles provided by the contractor will be washed prior to arrival on-site. This proposed project will be in accordance with MDT's **Construction Specifications** Article **107.12(E)** *Noxious Weed Management.*

Materials excavated for all "Build" Alternates will be removed to approved locations outside Glacier National Park. Measures will be implemented to prevent the loss of this material down the slope to the river. However, the steep terrain limits these measures to placing fencing material (chain link or plastic barrier) immediately below the excavation site.

It will not be possible to retain all of the rock and soil removed during the excavation process. The unstable nature of the slope results in a nearly constant flow of soil and rock down to the river. However, the careful operation of boring machinery, and the installation of fencing material will minimize the amount lost down the slope. These measures prevent a major increase in the rate of materials falling down this slope during construction.

Noise impacts will be limited to the period of actual construction, which will normally take place during daylight hours, only. This work period may be extended after Labor Day weekend depending on the rate of completion for various aspects of the proposed project. Weather and materials arrivals during construction will affect completion rates of these aspects.

Secondary impacts from construction are related to the viewing of the goats on the salt-lick cliff. Use of the GoatLick Viewing Area for construction equipment and materials will prevent, or severely restrict access to same. This Area will also be closed for specific times during construction (see Item #8, previous). Construction on this portion of FAP 1 for all "Build" Alternates will also restrict viewing from the highway. However, this restriction will only occur during the June - November construction period. Also, as with the Visual impacts described under Item #1, previous, the NPS does not regard restricting this view from FAP 1 as being a negative impact. Additional impacts from construction activities are discussed under Item #11 on the following page.

11. Transportation Impacts

The "No-Build" Alternate has the least initial impact on highway transportation. However, a failure of the "**r-e**" wall and/or the slope below it (as previously described), will result in a closure of this route for an undetermined amount of time. Major traffic disruptions will occur across northern Montana between the eastern and western portions.

Closing FAP 1 at this location also creates substantial increases in traffic on other primary routes crossing the Continental Divide in Montana. This increased traffic impact applies to Montana highway #200 (FAP 24) between Bowman's Corner and Clearwater Jct. Additional traffic would be forced to detour on the "Going-to-the-Sun" route within the Park, or the Crowsnest Trail between southern Alberta and British Columbia in Canada.

The NPS does not allow large recreational or commercial vehicles (large trucks and buses) over the former route — which is narrow, steep and winding. All traffic travelling to/from the Crowsnest Trail would be required to be inspected for Customs. Commercial carriers could haul cargo through Canada under an international customs bond.

The "Build" Alternates will have the same general impacts on transportation. Construction equipment and materials will occupy the eastbound (westerly/right) lane above the "**r-e**" wall at this location. Both lanes will be relocated under Alternate "**A**", the eastbound lane is replaced under "**B**", and both lanes will be replaced in "**C**".

The westbound lane (with the ditch and shoulder) will be used for a detour route during the construction period for all "Build" Alternates. Filling-in the existing ditch along the northeasterly side of FAP 1 will allow a two-lane detour to be used for this period. Traffic is detoured to the eastbound lane under Alternate "**C**" when that portion of the bridge is completed. Minor traffic disruption on this Alternate will occur during this time from the one-way/one-lane detouring (June - November). Traffic will be handled with signing and flagging in accordance with the Manual of Uniform Traffic Control Devices for all "Build" Alternates.

There will be additional construction-related traffic impacts resulting from the transport of excavated materials, construction equipment, and supplies. All of these impacts will be minor in nature, and limited to the duration of the construction period.

V.
COMMENTS And COORDINATION

A preliminary "scoping" meeting was held on this proposed action at the Izaak Walton Inn in Essex (2.8 ± miles northwesterly of this proposed project's location) on October 28, 1991. Representatives of the FHWA, MDT, Glacier National Park, and the Flathead National Forest attended this meeting. A second meeting was held at MDT's Kalispell Division office on January 30, 1992. The same agencies, less the FHWA, and consultants specializing in retaining wall construction were present at this meeting.

A Letter of Intent was distributed to a list of government agencies and private individuals provided by Glacier National Park. This Letter was mailed on February 18, 1992, and responses have already been generated by some Federal and state agencies, as well as a few private individuals and groups. Copies of this Letter of Intent and responses received to date follow under Part VI., the APPENDIX to this Environmental Assessment.

In general, the responses received from this Letter of Intent have been supportive or non-committal concerning this proposed project. Specifically, these comments concerned the appearance of the proposed project (when completed), noise (during construction), and impacts to the Mountain Goats and the Federally-listed Threatened/Endangered Species in the proposed project's vicinity. These issues have been given consideration under the preceding Part IV **IMPACTS**.

An additional "Scoping" meeting between MDT, the FHWA, Glacier National Park, and consultants was held at the MDT headquarters in Helena on July 17, 1992. The consultant retained by MDT for the design of this proposed project presented revised proposals at that meeting. These proposals, described as "Options" at that meeting, have been incorporated in the three "Build" Alternates described under Part III. These have been based on additional geological findings, and a meeting between MDT, the consultant, and the NPS at the latter's Glacier National Park headquarters on October 1, 1992.

An Opportunity for a Public Hearing will be offered following FHWA's approval of this Environmental Assessment. Unless comments received on this document warrant further investigation, no additional public involvement is planned.

The NPS (Glacier National Park), and the F&WS under the U.S. DEPARTMENT OF THE INTERIOR have agreed to be Cooperating Agencies in the preparation of this Environmental Assessment. The former as it has jurisdiction by law over this proposed project's location, and the latter (as described under Part IV.8, previous) as it has "special expertise" in the T & E Species issue. Copies of the response letters from both of these Cooperating Agencies also follow Part VI.

This proposed project has no effect on the NPS's Transportation Plan for Glacier National Park. Also, the NPS has no actions planned, or currently under way that will have any effect on this proposed project.

The U.S. DEPARTMENT OF AGRICULTURE (Flathead National Forest) has also been requested to be a Cooperating Agency. The Middle Fork of the Flathead River's reach that is designated part of the Wild & Scenic River system will not be affected by this proposed project. However, the initial proposals for this action did involve work in the river, and subsequent events may result in same. A copy of this agency's response letter also follows Part VI.

A biologist will be monitoring this proposed project's impacts on the natural environment described previously under Part IV.9. This is in accordance with the **Biological Resources Report**. A copy of this document follows Part VI., the APPENDIX of this Environmental Assessment.

This project biologist will be responsible for the following:

a. monitoring this proposed project's impacts from construction activities on all wildlife, and specifically on the goats (use of the salt-lick, migratory patterns, etc.);

b. monitoring the time periods specified (under Part IV.9, Plant & Wildlife Impacts, previous) to determine their effectiveness in reducing impacts to goats, and determining if revisions to these time periods are appropriate;

c. provide education/training on grizzly bear and other wildlife behavior, safety, etc. to project personnel (as described in Part IV.8, Threatened/Endangered Species Impacts - previous); and

d. conduct a Rare & Sensitive Plant Species survey prior to construction (as described under Part IV.9, previous).

List of Preparers

The individuals responsible for the preparation of this Environmental Assessment are as follows:

Dale W. Paulson - FHWA Region #8, Montana Division Environmental Coordinator

Edrie L. Vinson, Chief - MDT Environmental & Hazardous Waste Bureau

List of Government Agencies

The Federal, state, and local agencies with jurisdiction and/or environmental review authority over this proposed project's area are as follows (NOTE: An asterisk "*" denotes a Cooperating Agency under 23 CFR 771.111(d)):

U.S. DEPARTMENT OF THE INTERIOR
National Park Service (NPS)* Fish & Wildlife Service (F&WS)*

U.S. DEPARTMENT OF AGRICULTURE - Forest Service*

U.S. DEPARTMENT OF TRANSPORTATION
Federal Highway Administration (FHWA)*

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)

MONTANA DEPARTMENT OF HEALTH & ENVIRONMENTAL SCIENCES (MDH&ES)
Air & Water Quality Bureaus Solid & Hazardous Waste Bureau

MONTANA DEPARTMENT OF TRANSPORTATION (MDT)

Flathead County

VI.

- APPENDIX -

p. I. file

Montana Department
of Transportation

2701 Prospect Avenue
Helena, MT 59620-9726

Stan Stephens, Governor

February 18, 1992

(Letter of Intent - MASTER)

The department intends to develop a federal-aid highway project on U.S. Highway 2 in Flathead County and we'd like to hear your comments and suggestions. The project is called the Goat Lick Retaining Wall (control number 1958, F 1-2(59)182).

It's located between milepost 182.1 and 182.2 within the boundaries of Glacier National Park. A map showing the general location is enclosed with this letter.

We propose to remedy a slide condition in the area by constructing a new retaining wall in front of the existing reinforced earth wall. Tentative plans suggest the work will involve driving pilings into bedrock at the base of the existing fill and tying the pilings into bedrock under the roadway.

The project should be ready in time so that contractor bids can be accepted in June. Construction will take place between mid-August and the first of November, 1992. There'll likely be some disruption, although one lane of traffic will be kept open.

We'd like to hear from you—opinions on the project, environmental matters, problems this project could cause or eliminate, plans that could be affected or any other matter you feel is appropriate. In addition, if there are specific agencies, groups or individuals that you want to be sure are contacted, please let us know.

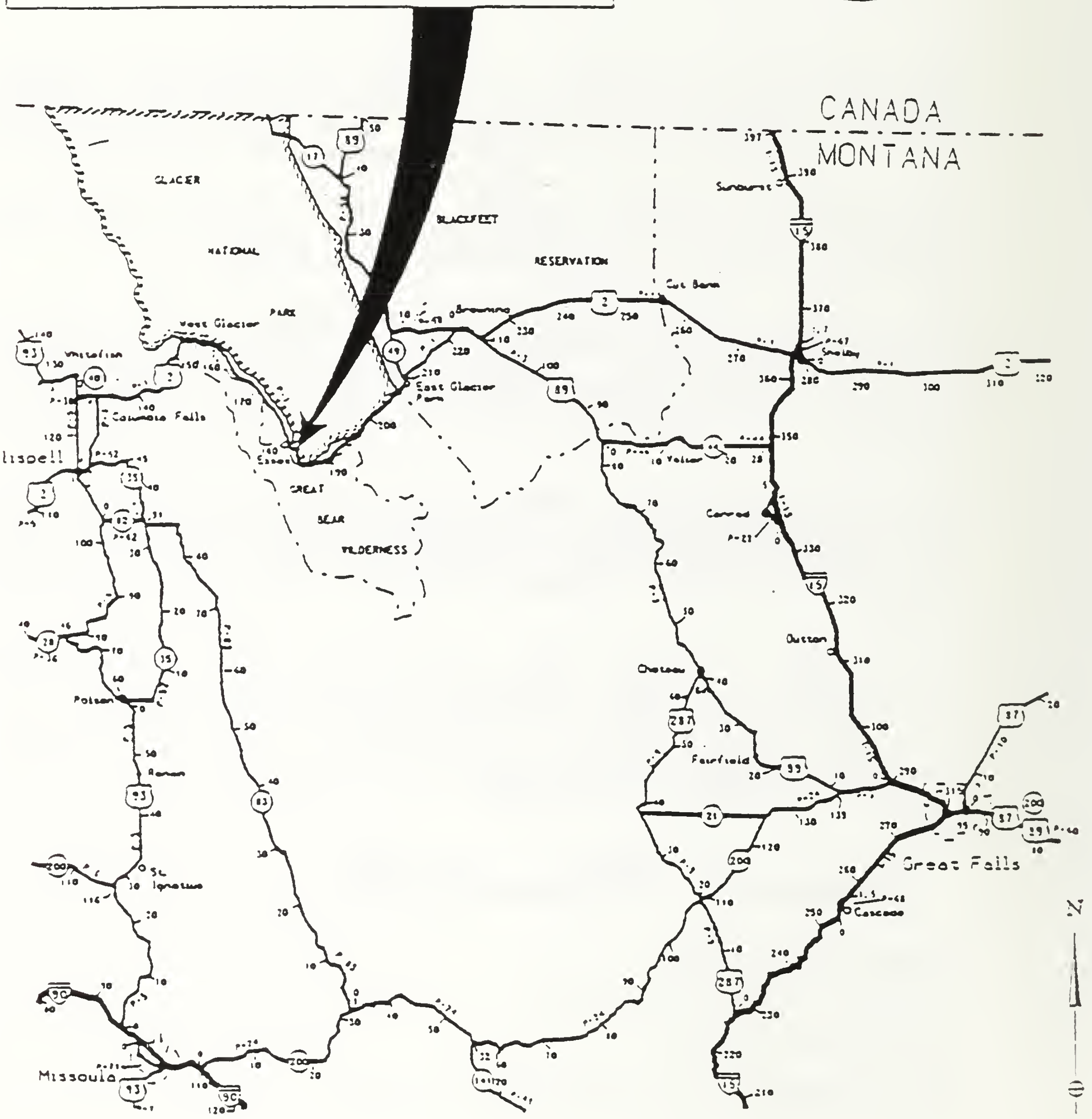
Dennis J Unsworth
Public Affairs Bureau Chief

DJU:D:PAF:222.cm-1

cc: Engineering & Operations Division

MONTANA DEPARTMENT
OF TRANSPORTATION

F 1-2(59)182
MDT NO. 1958
GOAT LICK RETAINING WALL
PE & CONST =



AO MASTER LIST - LETTER OF INTENT

Date: **February 5, 1992**

Project: F 1-2(59)
Goat Lick Retaining Wall
Control No. 1958

Requested by: **Sam Naseem**

2. Engineering Division
1. David S. Johnson
1. Carl S. Peil
2. (Dist. List) Doug MORGAN
1. Don Dusek
1. Jim Hill
1. John Maykuth
1. Dave Jensen
1. Edrie Vinson
1. Dick R. McIntyre
1. Dennis Unsworth
1. Keenan Bingham
2. Jack Ricker
1. EEO Officer
1. Public Hearing

2. Jim Weaver, District Engineer
Missoula, MT (Dist. List)

1. Larry Brazda, Asst. Const. Eng.
Kalispell, MT

2. CONSULTANT

Landslide Technology
7440 S.W. Hunziker Rd.
Portland, OR 97223

1. HIGHWAY COMMISSIONERS

Roy Duff
P.O. Box 185
Whitefish, MT 59937

1. MAYOR OF CITY OR TOWN
+ CITY GOVERNING BODY

Honorable Steve Barcus
Mayor of Browning
P.O. Box 458
Browning, MT 59417

1. CITY, COUNTY OR
CITY-COUNTY PLANNING BOARD

Flathead Co. Planning Board
724 Fifth Ave. East
Kalispell, MT 59901

3. BOARD OF COUNTY COMMISSIONERS

Flathead County Commissioners
Flathead County Courthouse
Kalispell, MT 59901

Glacier County Commissioners
Glacier County Courthouse
Cut Bank, MT 59427

1. COUNTY EXTENSION AGENT

Flathead County Extension Office
800 South Main
Kalispell, MT 59901

1. COUNTY CONSERVATION DISTRICT -
LOCAL

Flathead Co. Conservation Dist.
35 West Reserve Drive
Kalispell, MT 59901

1. STATE

State Soil Conservation Service
10 East Babcock Street, Room 443
Federal Building
Bozeman, MT 59715

1. UTILITIES
(Railroads, Telephone Lines, Power,
Gas, Oil, Etc.)

Montana Power Company
Attn: Gas Engineering
40 East Broadway
Butte, MT 59701

I. LOCAL INTERESTS (AS APPLICABLE)

1. Blackfoot Tribal Business Council
P.O. Box 852
Browning, MT 59417

(APPROPRIATE INDIAN TRIBES OR RESERVATIONS)

II. STATE OFFICES

Department of Commerce
Aeronautics Division
Airport Road
Helena, MT 59620 (DEADHEAD)

Department of Commerce
Attn: Admin. Trans. Div.
1424 - 9th Avenue
Helena, MT 59620 (DEADHEAD)

Department of Fish,
Wildlife & Parks
2. Stream Protection Coordinator
1420 East 6th Avenue
Helena, MT 59620 (DEADHEAD)

Department of Health &
Environmental Sciences
Solid & Hazardous Waste Bureau
836 Front Street
Helena, MT 59620 (DEADHEAD)

Department of Health
& Environmental Sciences
1. Air Quality Bureau
1. Water Quality Bureau
Cogswell Building
Helena, MT 59620 (DEADHEAD)

Department of Natural Resources
& Conservation
Office of the Director
1520 East 6th
Helena, MT 59620 (DEADHEAD)

Department of State Lands
Office of the Commissioner
1625 - 11th Avenue
Helena, MT 59620 (DEADHEAD)

Environmental Quality Council
Office of the Director
Capitol Post Office
P.O. Box 215
Helena, MT 59620 (DEADHEAD)

Montana Historical Society
State Historic Preservation Officer
225 North Roberts Street
Helena, MT 59620 (DEADHEAD)

Montana State University
Institute of Applied Research
Bozeman, MT 59715

State Clearinghouse
Lieutenant Governor's Office
Capitol Building
Helena, MT 59620 (DEADHEAD)

III. FEDERAL OFFICES

U.S. Army Corps of Engineers
c/o DNRC/CDD
1520 East Sixth Avenue
Helena, MT 59620-2301
(MINOR NON-CONFLICT PROJECTS)

Department of the Army
Seattle District Corps of Engineers
P.O. Box C-3755
Seattle, WA 98124 (WEST OF DIVIDE)

U.S. Department of Agriculture
U.S. Forest Service, Region 1
Attn: Regional Forester
P.O. Box 7669
Missoula, MT 59801
(LOCAL FOREST OFFICES AVAILABLE IF NEEDED)

Federal Emergency Management Agency
Region VIII
Denver Federal Center
Building 710
Denver, CO 80225

Federal Housing Administration
Office of the Director
Housing and Urban Development
Federal Office Building
301 South Park, Drawer 10095
Helena, MT 59626

U.S. Department of Agriculture
Forest Service Region 1
Regional Forester
Federal Building
Missoula, MT 59801

U.S. Department of the Interior
Bureau of Land Management
222 North 32nd Street
P.O. Box 36800
Billings, MT 59107

U.S. Department of the Interior
Bureau of Reclamation
Federal Building & U.S. Courthouse
550 West Fort Street, Box 043
Boise, ID 83724
(WEST OF DIVIDE)

U.S. Department of the Interior
Director, Office of
Environmental Affairs
1849 C Street N.W.
Washington, DC 20240-0001

U.S. Department of the Interior
Chief, Environmental Impact
Assessment Program
U.S. Geological Survey, MS-760
423 National Center
Reston, VA 22092

U.S. Department of Agriculture
Forest Service Supervisor
Flathead National Forest
P.O. Box 147
Kalispell, MT 59901

U.S. Department of the Interior
Chief, Western Field
Operation Center
Bureau of Mines
East 360 Third Avenue
Spokane, WA 99202

U.S. Department of Energy
A.R. Morrell, Environmental Manager
Bonneville Power Administration
P.O. Box 3621 - SJ
Portland, OR 97208

U.S. Department of the Interior
National Park Service
Branch of Compliance, RMRD-PC
Denver Federal Center
P.O. Box 25287
Denver, CO 80225

U.S. EPA Montana Office
Attn: EIS Review
301 South Park, Drawer 10096
Helena, MT 59626

E.P.A. Region 8
Environmental Review Coordinator
One Denver Place
949 - 18th Street
Denver, CO 80202-2405

U.S. Department of the Interior
U.S. Geological Survey
Water Resources Division
Room 428, Federal Building
301 South Park, Drawer 10076
Helena, MT 59626

U.S. Department of Transportation
Federal Aviation Administration
Airport District Office
FAA Building, Room 2
Helena, MT 59601

U.S. Department of Transportation
Federal Highway Administration
301 South Park, Drawer 10056
Helena, MT 59626 (DEADHEAD)

U.S. Department of Transportation
United States Coast Guard
Commander (OAN)
13th Coast Guard District
915 Second Avenue
Seattle, WA 98174

U.F. Fish & Wildlife
Montana Office
Enhancement Division
Mr. Kemper McMaster, Field Supvr.
Federal Building, 301 South Park
Helena, MT 59626 (DEADHEAD)

U.S. Fish & Wildlife Service (ES)
1501 - 14th Street West
Suite 230
Billings, MT 59102

Director, Federal Agency
Liaison Division
Office of Federal Activities
EPA Environmental Review
Coordinator
Washington, DC 20460

⑩

IV. ENVIRONMENTAL & SPECIAL INTERESTS

American Wilderness Alliance
C.R. Merritt, Executive Director
746 Sawyer Lane
Hamilton, MT 59840

Montana Automobile Association
P.O. Box 4129
Helena, MT 59604

Montana Motor Carriers Association
P.O. Box 1714
Helena, MT 59624
(INTERSTATE & PRIMARY PROJECTS
ONLY)

Sierra Club
Bitterroot Mission Group
c/o Leo Joron
545 Beverly Avenue
Missoula, MT 59801 (WEST)

Montana Wildlife Federation
P.O. Box 6537
Bozeman, MT 59715

PERSONS OF CONCERN

Toni Anstad
2216 Fifth Ave. S.W.
Great Falls, MT 59404

Briggs & Alice Austin
4741 Sundown Road
Missoula, MT 59801

Michael G. Bader, President
Glacier-Two Medicine Alliance
P.O. Box 8374
Missoula, MT 59807

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2217 J Street S.W.
Cedar Rapids, IA 52404

Helen Bibler &
James Parker
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Conner, MT 59827

Bikecentennial
Attn: Michael McCoy
P.O. Box 8308
Missoula, MT 59807

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750 Rocky Point Road
Polson, MT 59860

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P.O. Box 953
Whitefish, MT 59937

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2215 Arch St., #516
Philadelphia, PA 19103

Nick Boynion
225 East Kent
Missoula, MT 59801

Mary Bradshaw
P.O. Box 90
Dixon, MT 59831

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105 Peter Koch
Bozeman, MT 59715

Larry Broeker
3326 N. Whistler Ln. #201
Boise, ID 83703

Leonard Brubacher
Brubacher TOURS
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Canada NOB 2V0

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22072 Rustic Oak Lane
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P.O. Box 1723
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P.O. Box 8903
Missoula, MT 59807

Steve Dagger
P.O. Box 743
Bigfork, MT 59911

Lee Daneker
3251 - 43rd Ave. W.
Seattle, WA 98199

James Dennedy
352 Van Voast Ave.
Bellevue, KY 41073

Herbert & Mary Alice Devries
1063 Bayview Dr.
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George & Elizabeth Fenzl
1617 E. Menlo Blvd.
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Kalispell, MT 59901

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Whitefish, MT 59937

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Reedsburg, WI 53959

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Minneapolis, MN 55406

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Carol Stream, IL 60188

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Chattanooga, IN 37402

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931 Willow Ridge Rd.
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L. Water
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Helena, MT 59601

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Spokane, WA 99205

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P.O. Box 31
Whitefish, MT 59937

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47 E. 13th St.
Holland, MI 49423

Marc Wilsey
P.O. Box 371
Hungry Horse, MT 59919

Richard C. Wilson
2111 Nimitz Drive
Des Plaines, IL 60018

Helen E. Yaw
2569 Old U.S. Highway 91
Cascade, MT 59421

Lisa LS
(PI) file –

United States
Department of
Agriculture

Forest
Service
(406) 387-5243

Hungry Horse Ranger District
PO Box 340
Hungry Horse, MT 59919-0340

RECEIVED

FEB 26 1992

ENVIRONMENTAL BUREAU

Reply to: 1560

Date: February 25, 1992

MASTER
FILE
COPY

Mr. E.L. Vinson
Montana Department of Transportation
2701 Prospect Ave.
Helena, MT 59620

Dear Mr. Vinson:

The Montana Department of Transportation is proposing to repair the retaining wall in the Goat Lick area along U.S. Highway #2. Project #F 1-2(59)182 is located in Section 24, T29N, R16W, and is within the designated Flathead Wild and Scenic River Corridor. Since the Flathead National Forest is the lead agency in the management of this river segment, we need to relay our comments to you on the project relative to the Wild and Scenic River Act. This letter documents our findings as to the effect on the values for which the river was designated.

Background

A section of the reinforced earth wall located between the Goat Lick overpass and the Snowslip bridge has been sliding for several years and exhibits the potential for sudden catastrophic failure. This failure could potentially sever U.S. Highway #2 and contribute a large volume of concrete and earth to the Middle Fork of the Flathead River. This project proposal has been advanced to halt the failure process. Approximately 250 feet of concrete retaining wall drilled into bedrock at the bottom and tied to bedrock with permanent anchors will be placed immediately outside the existing failing wall section.

Free Flowing Status

This project will not alter the free flowing status of the Middle Fork of the Flathead Wild and Scenic River. There will be no construction in or in close proximity to the river channel.

Water Quality

It is unlikely this project will result in a violation of applicable water quality standards. Any reduction of water quality will be minimal and short term. Long term water quality will not be affected. If the project is not undertaken there is a strong likelihood severe impacts to water quality could result with the pavement and earth sliding into theriver.

Recreation

Float use on this section of the Middle Fork is moderate from June through mid to late July. As the water level drops float use declines. After late July virtually all river trips begin below the Goat Lick area.

The construction should not adversely affect the river floaters experience along this section of the river which is bounded by the railroad and highway. To a passing floater, the noise levels from the machinery will resemble the noise from semi-trucks on the highway.

Cultural Resources

There are no known cultural resource sites along the stretch of the river potentially affected by this project. The area for construction has previously been altered when the first retaining wall was constructed.

Geology

The Goat Lick is noted for its mineral outcropping. The repair of the retaining wall is away from this outcropping and should not adversely affect the geology of the area.

Fish and Wildlife

Since no material should be ravelling down the slope to the water there will be no impacts to fisheries in the River Corridor.

Wildlife use in the River Corridor adjacent to this project area is mainly by mountain goats. In order to minimize potential conflicts with the goats a construction period of August 15 through November 1 is being recommended although the original project was completed over a much longer season for construction.

Grizzly bears are known to pass through the project area, however, it is unlikely they will be adversely affected by the construction. Similar projects previously constructed along the river corridor, such as Cascadilla River Access, have shown this type of heavy construction can be accomplished without adversely affecting grizzly bears.

The River Corridor is within essential Bald Eagle habitat. Eagles are known to use the area as a migratory flyway during the fall and early winter. There are no known nest sites in the project area.

Other Unique Features

The scenic values of the area, as viewed from the river and the railroad, are important and should not be diminished. We propose the following measures be taken to retain the visual qualities of the corridor. (1) All materials used should be compatible with the existing wall, both in texture and in color. (2) Revegetation, if necessary, should be included with this project. (3) Work should be conducted from the highway, with no spur roads built below the wall.

There are no other special or unique features within this area of the River Corridor that will be adversely affected by this project.

It is our finding that the proposal will not have an adverse effect on the values for which the river was designated. It will not unreasonably diminish the scenic, recreational, historic, fish, wildlife, or other similar values for which this recreation portion of the Wild and Scenic River was established. We feel not taking action may result in impacts unacceptable to the Wild and Scenic River values should this section of highway fail and slide into the river.

Sincerely,

Allen L. Christophersen

ALLEN L. CHRISTOPHERSEN .
District Ranger

file

MASTER
FILE
COPY

DEPARTMENT OF
HEALTH AND ENVIRONMENTAL SCIENCES
AIR QUALITY BUREAU

STAN STEPHENS, GOVERNOR
COGSWELL BUILDING
STATE OF MONTANA
FAX # (406) 444-2606
HELENA, MONTANA 59620

(406) 444-3454
FAX # (406) 444-1374

Dan

February 26, 1992

RECEIVED
MAR 03 1992
ENVIRONMENTAL BUREAU

Mr. Dennis J. Unsworth
Montana Department of Transportation
2701 Prospect Avenue
Helena, MT 59620-9726

Dear Mr. Unsworth:

This is in response to your letter of notification regarding the highway improvement project designated as the Goat Lick Retaining Wall in Glacier National Park.

In general, any project which will smooth out the traffic flow, and reduce stopping and idling time will also reduce the amount of air pollution emissions from transportation sources. From this standpoint the Air Quality Bureau would like to support your efforts to upgrade the Montana highway system. Asphalt plants and gravel crushers are the primary emission sources for highway construction, and they must obtain an air quality permit from our office to operate in the state.

Sincerely,

Warren Norton

Warren Norton
Environmental Specialist

WN/tjl

Date Recd. Preconst. 3/2/92

Act	Info	MAIL ROUTE	Attach	Initial
	✓	30 Preconst Engr		
	✓	30 Assistant		
		30 Office Mgr		
		31 Safety Mgmt:		
		32 Road Design		
	✓	33 Environment		Has original
		34 Hydraulics		
		35 Survey & Mapping		
		36 Traffic Eng.		
		37 Traffic Operations		
	✓	39 Consultant Dsn.		
	✓	Dist. [illegible]		
	✓	File		

CCP

PROMOTING
COST EFFECTIVE HIGHWAY DESIGN
AND
BIO-REGIONAL PLANNING

DOWNSCOPE

Date Recd. Preconst 3/4/92
MAIL ROUT

	30 Precnst Engr	30 Assistant	30 Office Mgr	31 Safety Mgmt.	32 Road Design	33 Environment	34 Hydraulics	35 Survey & Mapi	36 Traffic Eng.	37 Traffic Operatio	39 Consultant Dsn	[illegible]		File
Info	✓	✓				✓					✓	✓		✓
Act														

February 27, 1992

MASTER
FILE
COPY

Dennis J. Unsworth, Public Affairs
Montana Dept. of Transportation
2701 Prospect Ave.
Helena, MT 59620-9726

RE: FHWA project F 1-2(59)182 - US 2, Flathead County, Glacier National Park.
"Goat Lick"

Dear sir,

Thank you for the notification about the federal-aid project. We don't see any potential adverse effects from the project at this time and concur that the work is needed. We note the project is being conducted on a river segment designated and protected under the Wild and Scenic Rivers Act. This most certainly should be mentioned in the project records (CE) and provisions should be made to minimize and avoid construction impacts wherever possible. Are any special state-of-the-art mitigations whatsoever going to be implemented that will specifically minimize impacts to river resources? Please send a copy of the CE/FONSI document for our records.

We are interested in researching the construction technology and its costs for consideration on another project ("driving pilings into bedrock at the base of the existing fill and tying the pilings into bedrock under the roadway",MTD 2/18/92). Please send a copy of the PS&E (Plans, specifications, and Estimates) for this project.

In addition, please send information about the MDT's new Citizens Advisory Board. The CCP is a primary citizens action group in the state since 1978; however, we did not get an invitation to participate. Who is the official responsible for organizing this endeavor? Thank you very much.

Sharlon L. Willows C.L.A., Certified Paralegal, CCP Research.

COALITION FOR CANYON PRESERVATION, BOX 422, HUNGRY HORSE, MT 59919
DOWNSCOPING FOR BETTER USE OF SCARCE HIGHWAY FUNDS.

Dan
P. I. file

4409 Dresden St
Kensington
MD. 20895

3/11/92

MASTER
FILE
COPY

Date Recd. Preconst. 3/30/92

MAIL ROUTE

Act	Info		Attach	Initial
	✓	30 Preconst Engr		
		30 Assistant		
		30 [illegible]		
		31 Safety Mgmt.		
✓		32 Road Design		
		[illegible]		
		[illegible]		
		35 [illegible]		
		36 [illegible] Eng.		
		37 [illegible] ions		
	✓	39 Consultant Dsn.		
	✓	Mala Dist		
✓	✓	~~Public Affairs~~		
	✓	File		

Mr Dennis J. Unsworth
Public Affairs Bureau Chief
MDT
2701 Prospect Ave.
Helena
MT 59620-9726

Dear Mr Unsworth:

Thank you for inviting me to comment on the Goat Lick Retaining Wall project.

In spite of the many visits to GNP, I have never continued on Highway 2 between East Glacier Park and West Glacier. I cannot, therefore, make specific comments on the project.

My only concern is that the retaining wall blend with the natural setting. I am sure this is of primary importance to MDT.

I look forward to travelling this route on my next visit to GNP, and will be interested to see how the new retaining wall turns out.

With best wishes for a successful outcome,

Sincerely,
John Giovanelle

FISH AND WILDLIFE ENHANCEMENT
FEDERAL BUILDING, US COURTHOUSE
301 S PARK
P O BOX 10023
HELENA MT 59626

MASTER FILE COPY

Date Recd. Precons. 3/4/92
MAIL ROUTE
Attach
30 Precons. Engr. ✓ | 30 Assistant ✓ | 30 Office Mgr. | 31 Safety Mgmt. | 32 Road Design | 33 Environment ✓ | 34 Hydraulics | 35 Survey & Mapping | 36 Traffic Eng. | 37 Traffic Operations ✓ | 39 Consultant Eng. | Kurt ✓ | File ✓
Info
Act

FWE-61130-Billings

March 2, 1992

Mr. Dennis J. Unsworth
Public Affairs Bureau Chief
Montana Department of Transportation
2701 Prospect Avenue
Helena, Montana 59620

Dear Mr. Unsworth:

This responds to your February 18, 1992 letter concerning Montana Department of Transportation Project F 1-2(59)182, Goat Lick Retaining Wall, on U.S. Highway 2 in Flathead County, Montana, which invited any comments we may have.

The Federally-listed endangered and threatened species which occur or may occur within the project area are the bald eagle (Haliaeetus leucocephalus), peregrine falcon (Falco peregrinus), grizzly bear (Ursus arctos horribilis) and gray wolf (Canis lupus). Pursuant to Section 7 of the Endangered Species Act of 1973, as amended, the Federal Highway Administration, as the responsible Federal agency, must determine if the proposed actions may affect these endangered species. If you or the Federal Highway Administration determine that any of these species may be affected, it will be necessary to initiate formal consultation with this office. The following information may aid you in that determination.

Both peregrine falcons and bald eagles may occur in the area as spring and/or fall migrants, and bald eagles may occur as winter residents. We are not aware of peregrine falcon or bald eagle nest territories in or near the project area. While we do not foresee any substantive issues with the proposed project with regard to the bald eagle and peregrine falcon, any power lines in the vicinity, if not properly constructed, could pose electrocution hazards for these species. To conserve these species and other large raptors protected by Federal law, we urge that any power lines that may need to be modified or reconstructed as a result of the project be raptor-proofed following the criteria and techniques outlined in the Raptor Research Report No. 4, **"Suggested Practices for Raptor Protection on Power Lines - The State of the Art in 1981"**. A copy may be obtained from:

Jim Fitzpatrick, Treasurer
Raptor Research Foundation
Carpenter St. Croix Nature Center
12805 St. Croix Trail
Hastings, Minnesota 55033.

Based on the limited description of the project accompanying your February 18 letter, it appears unlikely that wetlands would be impacted by the proposed project. However, if wetlands will be affected, we assume a wetland inventory and impact assessment will be completed and wetland impacts mitigated in accordance with the 1989. "Interagency Memorandum of Understanding: Management and Mitigation of Highway Construction Impacts to Wetlands in the state of Montana."

We note that we have also received a separate request for information concerning this project from the Federal Highway Administration; a separate response will be submitted.

We appreciate your efforts to consider and conserve fish and wildlife resources, including threatened and endangered species. If you have questions regarding this letter, please contact Mr. Rob Hazelwood of this office (406) 449-5225.

Sincerely,

[illegible] G. Wood
For
Dale Harms
State Supervisor
Montana State Office

JGW/jf

cc: Rob Hazelwood, USFWS, Fish & Wildlife Enhancement (Helena, MT)
Edrie Vinson, Montana Department of Highways (Helena, MT)
Federal Highway Administration, (Helena, MT)
Suboffice Coordinator, USFWS, Fish & Wildlife Enhancement (Billings, MT)

(P.I. File)

BIKECENTENNIAL
The Bicycle Travel Association
P.O. Box 8308, Missoula, MT 59807
(406) 721-1776

MASTER
FILE
COPY

March 3, 1992

Dennis J. Unsworth
Public Affairs Bureau Chief
Montana Department of Transportation
2701 Prospect Avenue
Helena, MT 59620-9726

Dear Mr. Unsworth:

We at Bikecentennial can envision no problems that might be created for bicyclists by your Goat Lick Retaining Wall project, other than the minor inconvenience of having only one lane available for a short distance.

We appreciate your requesting our input, and hope that you will keep us in mind when soliciting comments on other projects that might affect conditions for bicyclists traveling in Montana.

Sincerely,

Michael McCoy
Program Director

Date Recd. Preconst. 3/16/92

Act	Info	MAIL ROUTE	Attach	Initial
	✓	30 Preconst Engr		
	✓	30 Assistant		
		30 Office Mgr		
		31 Safety Mgmt.		
		32 Road Design		
	✓	33 Environment		
		34 Hydraulics		
		35 Survey & Mapping		
		36 Traffic Eng.		
		37 Traffic Operations		
	✓	39 Consultant Dsn.		
	✓	Msla Dist.		
	✓	Public Affairs		
	✓	File		

Montana Department of Fish, Wildlife & Parks

MASTER FILE COPY

Region One
490 No. Meridian Rd.
Kalispell. MT 59901
(406) 752-5501
FAX 406-257-0349

RECEIVED
MAR 12 1992
ENVIRONMENTAL BUREAU

Ref: DV290.92
March 9. 1992

Mr. Dennis J. Unsworth
Public Affairs Bureau Chief
Montana Dept. of Transportation
2701 Prospect Avenue
Helena. MT 59620-9726

Dear Mr. Unsworth:

Your letter to the Department in Helena regarding the Goat Lick Retaining Wall (control number 1958. F 1-2(59)182) has been referred to the regional office in Kalispell for comment. My staff has reviewed the proposed project and will defer comment to Glacier National Park since the project is totally within the Park boundaries.

Sincerely,

Dan Vincent
Dan Vincent
Regional Supervisor

JC/bj

c: GNP w/ ltr + map

Date Recd. Preconst 3/12/92

Act	Info	MAIL ROUTE	Attach	Initial
	✓	30 Preconst Engr		
	✓	30 Assistant		
		30 Office Mgr		
		31 Safety Mgmt.		
		32 Road Design		
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		36 Traffic Eng.		
		37 Traffic Operations		
	✓	39 Consultant Dsn.		
	✓	~~[illegible]~~		
	✓	Public Affairs		
	✓	File		

(P.I. file)

Mar 10, 1992

Dennis J. Unsworth,
Dept of Trans.
Helena, Mt.

MASTER
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COPY

Dear Mr. Unsworth:

I am familiar with the area of Project Goat Lick Retaining Wall (1958, F-2(59)182).

I have no particular concerns about the work to be done and expect it is necessary.

It would be nice if people didn't shoot the goats.

Sincerely,

Gracia A. Hilde

P.S. Thank you for your concern.

Date Recd. Preconst. 3-12-92

Act	Info	MAIL ROUTE	Attach	Initial
	✓	30 Preconst Engr		
	✓	30 Assistant		
		30 Office Mgr		
		31 Safety Mgmt.		
		32 Road Design		
	✓	33 Environment		
		34 Hydraulics		
		35 Survey & Mapping		
		36 Traffic Eng.		
		37 Traffic Operations		
	✓	39 Consultant Dsn.		
	✓	[illegible]		
	✓	File		

GRACIA A. HILDE
349 Fox Drive #16
Great Falls, MT 59404

GREAT FALLS
PM
10 MAR
1992

USA 29

Dennis J. Unsworth
Public Affairs Bureau Chief
Mt. Dept of Transportation
2701 Prospect ave
Helena, Mt 59620-97[illegible]

①

Date Recd. 3/30/92
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Info	✓	✓				✓					✓			✓
Act													✓	

(D.I. file)

Dan –

March 11, 1992
Huntsville, AL

MASTER FILE COPY

Dennis J. Unsworth
Public Affairs Bureau Chief
Montana Department of Transportation

Subject: Goat Lick Retaining Wall Project
Control Number 1958, F 1-2(59) 182.

Hi,

Thanks for your invitation to comment on the subject project. I have three comments:

1. Your letter indicates that the method used to stabilize the roadbed will involve driving pilings into bedrock. I understand the difficulty of what you're trying to do. However, driving pilings is a very noisy operation (at least it is in Alabama). This area is heavily used by wildlife, particularly goats, and the noise of a piledriver will disturb and probably temporarily drive away wildlife which normally use the area (not to mention tourists looking for wildlife). Recommend a quieter method be developed, or, as a minimum, piledriving should be limited to times which will minimize wildlife disturbance.

2. The area of the project is directly above
(over)

the Middle Fork of the Flathead River. Mitigation measures must be taken to ensure that the planned activities do not cause siltation of the river.

3. The bridge and roadbed in this area were constructed with underpasses to allow the goats to pass without crossin the highway. These underpasses should be retained.

I hope that these comments are of some use to you in planning this project.

Sincerely,

Hayden Glenn
1812 Woodward Dr
Huntsville, Al 3580

P.L. File

DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION

STAN STEPHENS, GOVERNOR

LEE METCALF BUILDING
1520 EAST SIXTH AVENUE

STATE OF MONTANA

DIRECTOR'S OFFICE (406) 444-6699
TELEFAX NUMBER (406) 444-6721

HELENA, MONTANA 59620-2301

MASTER FILE COPY

March 12, 1992

Mr. Dennis J. Unsworth
Public Affairs Bureau
Montana Department of Transportation
Helena, MT 59620

Re: Goat Lick Retaining Wall
CN 1958, F 1-2(59)182

Dear Dennis:

You recently invited comments pertaining to the referenced project. The Department of Natural Resources and Conservation has one concern.

If the contractor uses surface water or over 35 gallons per minute or 10 acre-feet of ground water for dust control, compaction or some other construction-related purpose, a temporary water use permit must be obtained. For information about application forms and procedures, contact the DNRC Water Resources Regional Office, P.O. Box 860, Kalispell, MT 59903 (phone 752-2288).

Thank you for the opportunity to comment.

Sincerely,

Jim

Jim Bond
Information Officer/
Citizen Participation Advocate

copy: Ron Guse, Water Rights Bureau
Kalispell Water Resources Regional Office
Intergovernmental Review Clearinghouse

Date Recd. Preconst. 3/17/92

Act	Info	MAIL ROUTE	Attach	Initial
	✓	30 Preconst Engr		
	✓	30 Assistant		
		30 Office Mgr		
		31 Safety Mgmt.		
		32 Road Design		
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		35 Survey & Mapping		
		36 Traffic Eng.		
		37 Traffic Operations		
	☑	39 Consultant Dsn.		
	✓			
	✓	Public Affairs		
	✓	File		

CENTRALIZED SERVICES DIVISION (406) 444-6700

CONSERVATION & RESOURCE DEVELOPMENT DIVISION (406) 444-6667

ENERGY DIVISION (406) 444-6697

OIL AND GAS DIVISION (406) 444-6675

WATER RESOURCES DIVISION (406) 444-6601

(P.I. File)

MASTER
FILE
COPY

GREAT BEAR FOUNDATION
P.O. Box 2699
Missoula, MT 59806
(406) 721-3009

March 15, 1992

RECEIVED
MAR 21 1992
ENVIROMENTAL BUREAU

Dennis Unsworth
Public Affairs Bureau Chief
Montana Department of Transportation
2701 Prospect Avenue
Helena, MT 59620-9726

re: Goat Lick Retaining Wall

Dear Mr. Unsworth,

Thank you for your letter of February 18 in which you describe DOT's intention to proceed with construction of a retaining wall on Highway 2, at the southern border of Glacier National Park, from mid-August to November. Because federal funds are involved, the project must conform to requirements of the federal Endangered Species Act. This, our comment, will apply primarily to the grizzly bear.

Grizzly bears are presently extinct on 98 percent of their former range across the American West. Accordingly, their numbers are also reduced to a considerable extent. Although as many as 100,000 grizzlies once lived in what is now the lower 48 United States, fewer than 1000 survive here today, mostly in Montana.

However, the asset this represents for Montana is being jeopardized as continued and continuing activities in grizzly bear habitat contribute to further retreat of grizzlies to smaller and smaller areas. This will, in its turn, reduce the number of bears that the area can support, and will contribute to pressing them closer to extinction. The project you describe would thus occur within a context of continuing decline for the grizzly bear. For the Department of Transportation, this situation raises the question of your best, most appropriate response. We appreciate the chance to comment for the record.

First, as I see it, and as you describe it, the construction of the Goat Lick Retaining Wall would be but one factor to evaluate in the Greater Glacier-Wilderness

Ecosystem. We are aware of scores of projects ongoing, proposed, or completed in this important ecosystem, which includes Glacier National Park, the Bob Marshall Wilderness, and other lands. These other projects include but are certainly not limited to mining, logging, oil-gas drilling, subdivision, resort expansion, railway and highway traffic, et al. It is the incremental but cumulative effect of these multiple changes that presses the remaining grizzlies toward continuing decline and the increasing risk of extinction in Montana.

Second, as I see it, based on how you describe it, the construction of the Goat Lick Retaining Wall would be a temporary and slight disruption for grizzly bears. As such, it could be mitigated by rescheduling some other slight disruption that has been scheduled to occur in the same ecosystem at the same time; i.e., a timber sale scheduled for that same period could be rescheduled, or some other highway-related project in, say, the Swan Valley or near Lincoln could be rescheduled so as not to add pressure at the same time.

Third, the Goat Lick project would obviously not push an otherwise healthy population of grizzly bears into extinction. In fact, no single project, by itself, can do so. This would apply to just one road built to reach just one oil-gas drilling site at Blackleaf Canyon, Goat Mountain, or Rogers Pass. It would also be true of any one road built to reach any single timber sale in the Swan Valley, on the Rocky Mountain Front, or up the North Fork of the Flathead River. It would as easily apply to any single summer home built anywhere in the Greater Glacier-Wilderness Ecosystem, through which two major highways including Highway 2 now cut. And of course this same general truth would apply to construction of the Goat Lick Retaining Wall.

Fourth, government agencies characteristically evaluate each newly proposed project as if it would exist alone, in a trackless wilderness that stretched unbroken for many miles in all directions around the proposed project. For example, Forest Service EISs are site specific, and treat each new roadbuilding project as ecosystem. This process is conspicuously contrary to the realities of the grizzly's situation, but it has precedent and has not yet been replaced by agencies in favor of an ecosystem-wide analysis of risk. It has been and still is this piecemeal, selective, case-by-case process that has allowed incremental but cumulative effect to continue its steady whittling of the acreage available to support Greater Glacier-Wilderness Ecosystem's grizzly bears, and other wildlife including black bears.

So, it would help the bear if you could find some way to offset the temporary disturbance of the Goat Lick project, by eliminating some similarly minor disturbance that is now scheduled at the same time -- mid-August to November -- elsewhere in the same ecosystem. We would suggest that, because of the existing situation in and around the ecosystem, you and others could choose from a very wide range of such projects in and around this ecosystem from mid-August to November. For instance, you could inquire of possibilities at any of the several Ranger Districts of the four national forests included in the ecosystem. We anticipate that you will have no trouble finding a variety of projects from which to choose for mitigation purposes.

But we would hope that Montana could do more to protect an asset such as the Glacier-Wilderness Ecosystem's grizzly bears. Mitigation is a softened blow, but a mitigated blow is still a blow to this valuable asset. We suggest a more proactive approach, and here again a variety of responses is possible. For example, you could set up an information tablet describing the grizzly's need for security in the Glacier-Wilderness Ecosystem. This tablet need only occur in the same ecosystem to serve its purpose; it could as easily be set up alongside the information site currently near the top of Rogers Pass as it could on Highway 2. Such a sign or tablet would provide long-term information to residents and travellers who pull over to learn about the grizzly bear and, of course, the bear's need for a secure, viable landscape. The sign or tablet could, for example, include the address of the Montana Department of Fish, Wildlife and Parks as a source of further information for the motorists who do happen to pull over at (already-existing) roadside parking. The sign or tablet need not be, and should not be an expensive or elaborate one. It should be a very modest one, to offset a temporary disturbance and at the same time act for long-term investment in a valuable Montana asset.

For the record, I will say that the Great Bear Foundation is not opposed to the Goat Lick project; if the project is mitigated, and if it indeed contributes to long term investment in the rare asset that grizzlies provide to Montana, it could prove more beneficial than harmful. And yet, at the same time, we would be remiss if we did not also urge you to consider your decision in an ecosystem-wide context, because it is of course the incremental and cumulative effect of many individual projects, such as yours, that now jeopardize continued existence of the grizzly bear in the Greater Glacier-Wilderness Ecosystem.

Thank you for this opportunity to comment.

Sincerely,

Lance Olsen
President

cc: Matt Reid, Ph.D.
MT Fish, Wildlife and Parks
Burlington Northern

Date Recd. Preconst. 3/17/92

Act	Info	MAIL ROUTE	Attach	Initial
	✓	30 Preconst Engr		
	✓	30 Assistant		
		30 Office Mgr		
		31 Safety Mgmt.		
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	✓	33 Environment		
		34 Hydraulics		
		35 Survey & Mapping		
		36 Traffic Eng.		
		37 Traffic Operations		
	✓	39 Consultant Dsn.		
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	✓	[illegible]		
	✓	File		

P.I. File

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DEPARTMENT OF HIGHWAYS

STAN STEPHENS, GOVERNOR

2701 PROSPECT AVE.

STATE OF MONTANA

HELENA, MONTANA 59620

RECEIVED
MAR 21 1992
ENVIRONMENTAL BUREAU

Date Recd. Preconst 3/20/92

Act	Info	MAIL ROUTE	Attach	Initial
	✓	30 Preconst Engr		
		30 Assistant		
		30 Office Mgr		
		31 Safety Mgmt.		
		32 Road Design		
	✓	33 Environment		
		34 Hydraulics		
		35 Survey & Mapping		
		36 Traffic Eng.		
		37 Traffic Operations		
	✓	39 Consultant Dsn.		
	✓	Mtl. Dist		
	✓	Public Affairs		
	✓	File		

March 16, 1992

Dennis J. Unsworth
Chief, Public Affairs Bureau
Montana Department of Transportation
2701 Prospect Avenue
Helena, Montana 59620

Dear Dennis:

With reference to yours of February 18th and the Goat Lick retaining wall on U. S. 2, I don't have much to add except that I think we should go ahead with it. I finally got by there and looked at it.

I haven't heard any static about it this spring and assume if we have made peace or are making peace with Glacier Park that we should go ahead with it. I note from the "Green Book" and the tentative letting lists that it is scheduled for the June letting.

Sincerely,

Duff

Roy M. Duff
Vice Chairman
Highway Commission

P. I. file

MASTER
FILE
COPY

Joel G. Vignere
931 Willow Ridge Rd.
Hudson, WI. 54016

April 6, 1992

Dennis J. Unsworth
Public Affairs Bureau Chief
Montana Department of Transportation
2701 Prospect Avenue
Helena Montana 59620-9726

Dear Mr. Unsworth:

Thank you for this opportunity to comment on the Goat Lick Retaining Wall (control #1958, F 1-2(59)182).

My primary concern would be that this project have minimal impact on the mountain goats that frequent the goat lick area, both during and after construction.

My only other concern at this time is that the finished project look as natural as possible. To be as aesthetically pleasing as practicable, the use of native stone facing would be a great help. If this is not possible, perhaps some other means of disguising the flat concrete slab appearance could be used.

Thanks again for this opportunity to participate.

Sincerely,

Joel G Vignere

RECEIVED
MAY 27 1992
ENVIRONMENTAL BUREAU

P. I. file

MASTER
FILE
COPY

April 25, 1992

Mr. Dennis J. Unsworth
Public Affairs Bureau Chief
Montana Department of Transportation
2701 Prospect Avenue
Helena, MT 59620-9726

Re: Goat Lick Retaining Wall
Control Number 1958, F 1-2(59)182

Dear Sir:

I have read with considerable interest and appreciation, your letter of February 18, 1992 regarding the above referenced project. Since there would be no violent disruption of the natural environment by the building of this new retaining wall and it would be in the interest of public safety, I would recommend that it be pursued with all hast.

My only concern in matters of this kind, is the disruption of the natural beauty of the country for the interests and benefits of the very few. When public safety is concerned and considering the number of people that would be protected by such a wall, I feel that it should definitely be a "Go Project".

Thank you for asking for an opinion from me and if I can be of future and further service, please do not hesitate to contact me.

Sincerely:

William R Henders, P.E.

William R. Henders, P. E.
5947 Dumfries Drive
Houston, TX 77096

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MAY 27 1992
ENVIRONMENTAL BUREAU

(P. I. File)

[illegible] COPY

Dennis J. Unsworth
Public Affairs Bureau Chief
Montana Department of Transportation
2701 Prospect Avenue
Helena, MT 59620

Dear Mr. Unsworth,

With regard to the Federal aid Highway project called the Goat Lick Retaining Wall (control number 1958, F 1-2(59) 182) I have the following comment:

It is obvious this road needs stabilization. It is a marginal site for a road. I have always wondered why it is necessary to have the road across this slide area in the first place. This site will forever be a deterrent to road expansion and repair, both because of the site and because of the goats.

It has always seemed to me that it should be across the river like the railroad and that it would be less costly in the long run, when you consider future need to four lane and all of the objections to road widening that have resulted in the park area with the major objection being that they will lead to destruction of the goat lick access for the goats someday.

Why pour good money after bad at this difficult site. Why not go across the river and build in a more feasable site and leave this area to the slides and the goats with one small access road from the west to view the goat lick.

Marcy Bishop
750 Rocky Point Road
Polson, MT 59860

RECEIVED
MAY 27 1992
ENVIRONMENTAL BUREAU

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MSE, Inc. Corporate Office P.O. Box 4078 Butte MT 59702 (406) 723-8213
Component Development and Integration Facility (CDIF) P.O. Box 3767 Butte, MT 59702 (406) 494-7100

RECEIVED
FEB 27 1992
ENVIRONMENTAL BUREAU

Date Received:

ACT	INFO	Distribution
	✓	Adm. Engineering
		Adm. Operations
	✓	P92MSE-205 w/attac
		Construction
		Bridge
		Right-of-Way
		Materials
		Legal
	✓	Jim Weaver w/attc
	✓	Art Jacobson/[illegible]

February 26, 1992

Ms. Edrie Vinson
Environmental & Hazardous Waste Bureau
Montana Department of Highways
2701 Prospect Avenue
Helena, Montana 59602

RE: Goat Lick Retaining Wall Construction Spill Prevention/Spill Contingency Plan, F1-2(59)182

Dear Ms. Vinson;

Enclosed is a copy of the Final Spill Prevention/Spill Contingency Plan for the Goat Lick retaining wall construction project. I have also mailed a copy to Larry Brazda at the Kalispell MDT office. Please let me know if you require additional copies of this report.

MSE would like to thank you for the opportunity to do business with MDH and if we can be of assistance in the future, please do not hesitate to call either Mike Rubich or myself.

Sincerely,

Tammi M. Adams

Tammi M. Adams
Environmental Engineer

cc: Larry Brazda, MDT Kalispell
Mike Rubich

HW file

MASTER
FILE
COPY

MSE. Inc. Corporate Office P.O. Box 4079 Butte MT 59702 (406) 723-8213
Component Development and Integration Facility (CDIF) P.O. Box [illegible] Butte, MT 59702 (406) 494-7

March 3, 1992

92MSE-219

Ms. Edrie Vinson
Environmental & Hazardous Waste Bureau
Montana Department of Highways
2701 Prospect Avenue
Helena, Montana 59602

RE: Final Spill Prevention/Spill Contingency Plan, Goat Lick Retaining Wall Reconstruction, F1-2(59)182

Dear Ms. Vinson;

Please make the following amendment to the Final Spill Prevention/Spill Contingency Plan for the Goat Lick Retaining Wall Report:

- Page 2, second paragraph reads, "The Goat Lick area is located in the SW¼ of Section 14, T29N, R16W, ...". Please amend this sentence as follows, "The Goat Lick area is located in Section 24, T29N, R16W, ...".

I apologize for any inconvenience this may cause. Please call me if you have any questions or concerns regarding this report.

Sincerely,

Tammi M. Adams
Environmental Engineer

cc: Larry Brazda
Mike Rubich

RECEIVED
MAR 04 1992
ENVIRONMENTAL BUREAU

REVISED FINAL

SPILL PREVENTION/SPILL CONTINGENCY PLAN GOAT LICK RETAINING WALL RECONSTRUCTION

GOAT LICK, MONTANA
F 1-2(59)182
CONTROL NO. 1958

REVISED FINAL

SPILL PREVENTION/SPILL CONTINGENCY PLAN
GOAT LICK RETAINING WALL RECONSTRUCTION
GOAT LICK, MONTANA
F 1-2(59)182
CONTROL NO. 1958

Submitted by:

MultiTech Services Division of MSE, Inc.
P.O. Box 4078
220 North Alaska
Butte, Montana 59702

Submitted to Ms. Edrie Vinson
Environmental & Hazardous Waste Bureau
Montana Department of Transportation
2701 Prospect Avenue
Helena, Montana 59620

Revised by Stan Sternberg
Environmental & Hazardous Waste Bureau

March 1993

MSE, Inc. Corporate Office P.O. Box 4078 Butte, MT 59702 (406) 723-8213
Component Development and Integration Facility (CDIF) P.O. Box 3767 Butte, MT 59702 (406) 494-7100

FINAL

SPILL PREVENTION/SPILL CONTINGENCY PLAN
GOAT LICK RETAINING WALL RECONSTRUCTION
Essex ~~GOAT LICK~~, MONTANA
F1-2(59)182

[illegible] 195

Submitted by:

MultiTech Services Division of MSE, Inc.
P.O. Box 4078
220 North Alaska
Butte, Montana 59702

Submitted to:

Ms. Edrie Vinson
Environmental & Hazardous Waste Bureau
Montana Department of Highways
2701 Prospect Avenue
Helena, Montana 59602

March 1992

TABLE OF CONTENTS

Page #

1.0 INTRODUCTION 1

2.0 SITE VISIT 2

3.0 TELEPHONE INTERVIEWS 4

4.0 RECOMMENDATIONS 7

LIST OF FIGURES

FIGURE 1 3

Appendices

A. Photograph Log
B. Record of Telephone Conversation

1.0 INTRODUCTION

MultiTech Services of MSE, Inc. (MSE), was retained by Ms. Edrie Vinson of the Department of Highways (DH), Helena, Montana, on 3 February 1992, to write Special Contract Provisions for the reconstruction of the Goat Lick Retaining Wall near Essex, Montana, on Montana Highway 2. The Special Contract Provisions are intended to address spill prevention and spill contingency plans for any hazardous or environmentally detrimental materials which may be used during construction of the Goat Lick Retaining Wall.

2.0 SITE VISIT

A site visit of the Goat Lick area was completed by Tammi Adams, Environmental Engineer for MSE, on 11 February 1992. Mr. Larry Brazda of the Department of Transportation, Kalispell, conducted the tour of the Goat Lick retaining wall construction area (see Appendix A for photograph log).

The Goat Lick area is located in the SW¼ of Section 14, T29N, R16W, of Flathead County, south of Essex near the Walton Ranger Station on Montana Highway 2 (see Figure 1). Immediately west of this area is the Middle Fork of the Flathead River and north of the retaining wall construction area is a bridge where Highway 2 crosses a ravine. This bridge is one of two bridges which the mountain goats frequently travel under to access a naturally occurring salt lick located near the river bank.

Mr. Brazda stated that the Goat Lick area is designated an environmentally sensitive area and special concern for mountain goats has been expressed by both the United States Forest Service (USFS) and Glacier National Park (Park) officials. In addition, the USFS and Park personnel have expressed concerns regarding hazardous materials, personnel and/or heavy equipment falling into the Middle Fork of the Flathead River, the ability to retrieve these items due to the steep slope of the river bank, and the possibility of adverse effects hazardous materials may have on the river and aquatic populations. Visual inspection of the area confirmed the steep slope of the river bank and the potential difficulty in retrieving equipment, debris or personnel from the river or bank.

The embankment from Highway 2 to the river appears to be composed of metamorphosed sedimentary type rock that is unconsolidated and clastic. This would indicate that the bank would generally exhibit a high permeability and free liquids would tend to absorb into the soil.

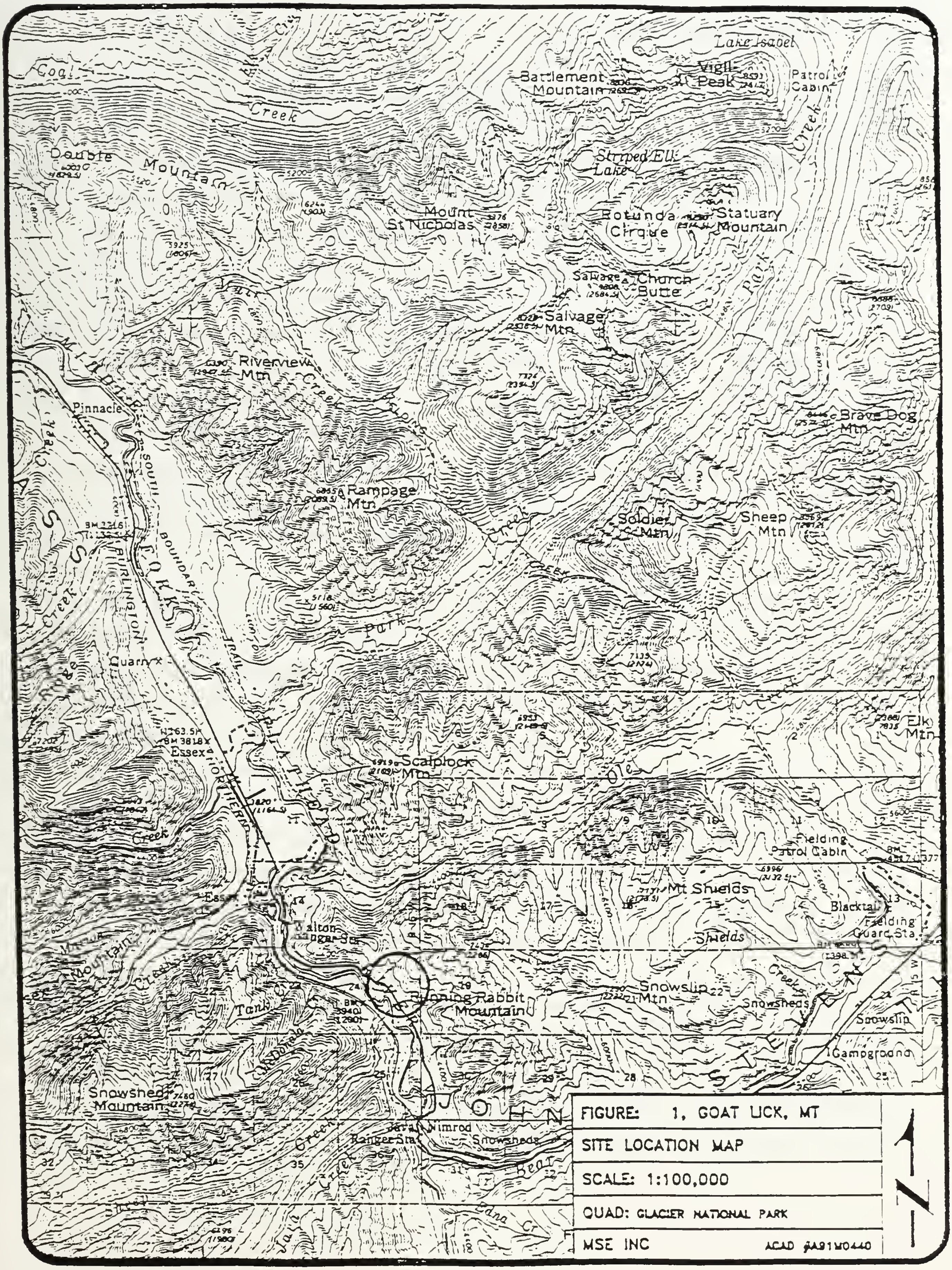


FIGURE: 1, GOAT LICK, MT

SITE LOCATION MAP

SCALE: 1:100,000

QUAD: GLACIER NATIONAL PARK

MSE INC ACAD #A91M0440

3.0 TELEPHONE INTERVIEWS

Several individuals associated with and/or interested in the Goat Lick retaining wall project were not available to attend the 11 February 1992 site visit and meeting; and therefore, were contacted by telephone. Telephone conversation logs are presented in Appendix B and will be reiterated here.

Ms. Beth Burren of the USFS was contacted regarding her concerns with the Goat Lick project. Ms. Burren stated that the USFS is concerned with: potentially hazardous fluids from construction equipment causing fish kills and polluting the river if not properly managed; what response actions will be taken if equipment, supplies, and/or personnel go into the river; and what actions will be initiated if equipment fluids are spilled on the roadway and/or river bank. Ms. Burren stated that the USFS is interested in any situations which may adversely effect wildlife or aquatic life because the area is an environmentally sensitive area. Ms. Burren suggested that Mr. Kim Potter with Flathead County be contacted regarding the hazardous materials response capabilities of the county.

Mr. Bob Dunkley, representing Glacier National Park, was contacted regarding the Park's concerns with the Goat Lick project. Mr. Dunkley stated that the Park's concerns are: timing of the project, because mountain goats heavily use the area during spring and summer months; visual impact of the retaining wall, because the Middle Fork is in a wild scenic river corridor; the visitor/traveler use, because traffic flow must be maintained; erosion into the river as a result of the project; keeping debris, equipment, personnel, and hazardous materials out of the river and off of the river bank; keeping the majority of construction work on the road versus the slope; the Goat Lick area is also considered an important area for grizzly bears and wolves, therefore sanitation systems must be chemically maintained and all garbage must be disposed of on a daily basis; and that materials such as antifreeze from vehicle boil-overs, maintenance, etc., be properly cleaned up, because animals, especially mountain goats, are attracted to antifreeze spills, lick up spilt material, and may die. Mr. Dunkley indicated that anything that may be detrimental to wildlife, river/aquatic life, and/or traffic flow concerns Park officials.

Mr. Kim Potter of the Flathead County Disaster and Emergency Response division was contacted regarding the emergency response capabilities of Flathead County. Mr. Potter explained that the county has absorbent booms and pads at Essex and West Glacier but only in limited quantities. Mr. Potter explained that the absorbent booms work well for gross contamination and the absorbent pads work best for mopping up sheens and smaller spills.

Mr. Potter also stated that Essex has an emergency response team and identified Mr. Ron Sullens of Essex, as the closest contact for medical emergencies at 888-5650, and/or dialing 911. In addition, Kalispell has a Medic-Alert helicopter with a response time to the Goat Lick area of approximately 20 minutes. The Medic-Alert team also has life support systems and emergency rescue capabilities.

To remove heavy equipment from the river, Mr. Potter felt that there may be a wrecker large enough in Columbia Falls to complete the task.

Mr. Shiv Batra of Inca Engineering, was contacted regarding what type of construction equipment would be used on the Goat Lick project. Unfortunately, at the time of this report, final design of the retaining wall had not been completed and Mr. Batra could not definitively identify what equipment would be required to complete the project. However, Mr. Batra stated that within a few weeks, the design would be complete and he could identify the contractor awarded the project who could distinguish what equipment would be used to complete the project.

Ms. Lisa Fairman of the Montana Department of Transportation was contacted regarding the Goat Lick project. Ms. Fairman stated that some of the concerns she had heard were with regard to a spill contingency plan for potentially hazardous materials and equipment going into the river. In addition, Ms. Fairman stated that petroleum products can attract bears and any spills should be properly cleaned up and every attempt should be made to bear-proof containers and equipment.

Ms. Fairman also stated that bear-proof containers may be available at Essex and that Mr. Jim Tillmont, with Glacier National Park Resources, has suggested utilizing bear-proof containers during the construction effort.

Several unsuccessful attempts were made to contact Mr. Derek Conforth, of Landslide Technology, regarding the Goat Lick project. Unfortunately, due to the time constraint required to finish this task, no telephone interview was completed with Mr. Conforth.

4.0 RECOMMENDATIONS

In addition to environmental provisions specifically stated in Sections 107 and 208 of the Standard Specification for Road and Bridge Construction, adopted by the Montana Department of Transportation, the following recommendations are made regarding construction of the retaining wall at Goat Lick, Montana:

General:

- Worker sanitation facilities should be chemically treated.
- All garbage (including food waste, paper waste, etc.) should be stored and disposed of in bear-proof containers that resist wind dispersion. Remove all garbage (especially food waste) from the construction area daily.
- All waste construction materials (i.e., wood products, scrap metal, etc.) should be disposed of in bear-proof and wind resistant containers, removed from the construction site on an as needed basis, and disposed of properly.
- All waste cement and asphalt, etc., should be contained in leakproof containers, secured from wildlife encroachment, removed from the construction site, and disposed of properly.
- All cement mixer wash water should be collected into steel drums or other leak proof containers. The wash water should be reused when possible and/or disposed of at an approved off-site location in an environmentally safe manner.
- Material Safety Data Sheets (MSDSs) applicable to all materials intended for use on the construction site, should be kept on-site in the custody of MDT's project manager. Construction personnel should be knowledgeable of the information contained in the MSDSs and where the MSDSs are kept.
- Plastic sheeting should be placed on the ground prior to maintenance of construction equipment, especially oil and antifreeze changes. All spilt liquids should be immediately cleaned up with an appropriate absorbent material and disposed of properly. Used plastic sheeting should also be disposed of properly.
- Special attention must be paid to construction equipment liquids when spilt or stored where wildlife may come into contact with it, especially antifreeze and petroleum products. Every attempt must be made to restrict wildlife access to these materials.
- Kalispell hospital personnel should be notified of the construction work being completed at Goat Lick and alerted to potential medical emergencies that may occur. Responsible

hospital personnel should also be provided copies of the MSDSs for potentially hazardous materials that will be used on-site. Also local medical emergency personnel should be contacted to assess their ability to handle various medical situations which could occur.

- A local wrecker service should be contacted and identified that has the ability to remove construction equipment from the river.
- Flathead County Disaster and Emergency Response division (406-756-5630) and the Essex Quick Response Unit (406-888-5650) should be notified of the work to be completed at Goat Lick, the time frame it will be completed in, and should be provided copies of all MSDSs for potentially hazardous materials that will be used during construction of the retaining wall.

Spill Reporting

- There should be a designated person on-site at all times who is responsible for any emergency response actions to be take during an environmentally threatening situation. This person should be knowledgeable of proper actions and uses of emergency response equipment and procedures and have the ability to direct and supervise personnel.
- Any spills of potentially hazardous materials should be reported to the on-site supervisor immediately so that appropriate actions may be taken.
- A spill report should include: where the spill occurred, what material was spilt, approximate amount of material spilt, when the spill occurred, any personal injuries, and what, if any, actions where already taken.
- The on-site supervisor shall decide if off-site assistance is required and shall notify the appropriate authorities.
- The on-site supervisor should notify the local Flathead County Disaster and Emergency Response (406-756-5630) and the state's Disaster and Emergency Services Division (1-800-426-9440) regarding any hazardous material spill. For hazardous waste spills that may affect human health or may contaminate surface waters, the on-site supervisor shall also notify the National Response Center at 1-800-424-8802.

Spill Prevention Plan

- A variety of absorbent materials (i.e., petroleum and universal booms and pads, and "safe step") should be kept on-site. In addition, containment booms (for spills reaching the river) should also be stored on-site. Various sizes of open-top drums, shovels, and brooms should also be on-site for cleanup and containment of waste material spills.

- A bermed-spill containment structure should be constructed to store potentially hazardous liquid materials.

- All waste and non-waste liquids should be stored in leak-proof and impermeable containers and stored in a bermed-spill containment structure.

- A nylon (or comparable material) "catch net" should be placed approximately 10 feet below the construction site along the slope of the river bank to catch lighter weight materials/debris that may fall towards the river. The catch net should be secured along the base. In addition, a chain-link should be located approximately 10 feet down slope from the catch net in order to capture heavier debris of personnel before falling into the river.

Spill Contingency Plan

Small Spills

- Small liquid spills of potentially hazardous materials (petroleum products, antifreeze, curing agents, etc.) on impermeable surfaces (i.e., roadway, etc.) should be immediately cleaned up either by mopping the material up with an absorbent pad, or by sprinkling "safe step" (or comparable material) on the liquid and sweeping material into a proper container for disposal. The spill and all pertinent information should be reported immediately to the responsible on-site supervisor.

- Small liquid spills of potentially hazardous materials (petroleum products, antifreeze, curing agents, etc.) on permeable surfaces (i.e., river bank, etc.) should be excavated and the contaminated material disposed of in the proper container for disposal. The spill should be immediately reported to the responsible on-site supervisor.

- Any leaks or spills of potentially hazardous materials occurring within the bermed area should be reported to the responsible on-site supervisor for appropriate action.

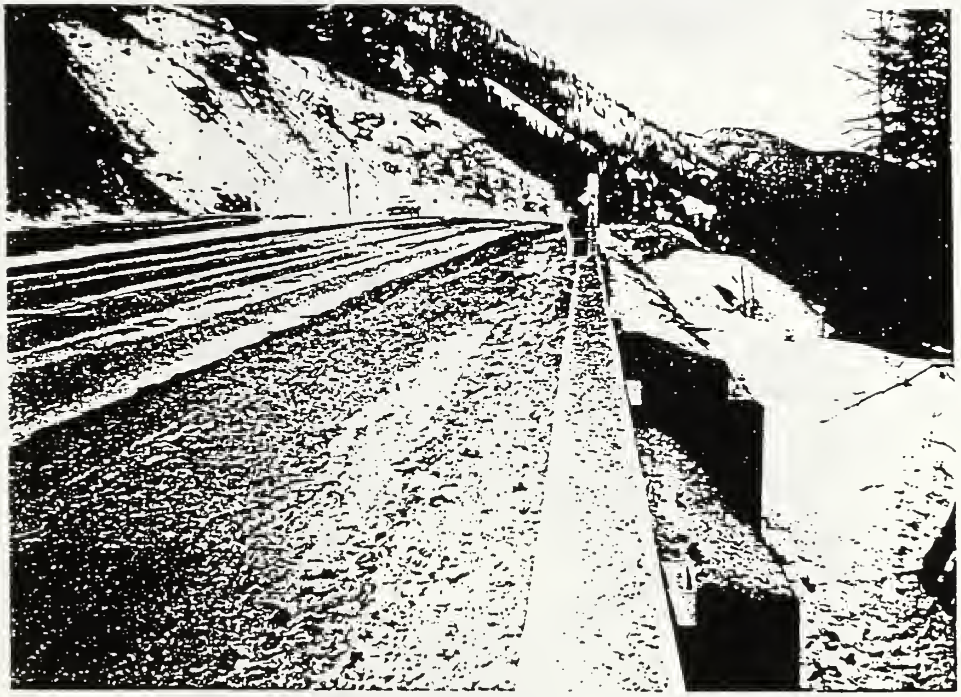
- Small petroleum spills leaving a sheen on the river surface may be cleaned up with appropriate absorbent pads. All contaminated pads must be contained and disposed of properly.

Large Spills

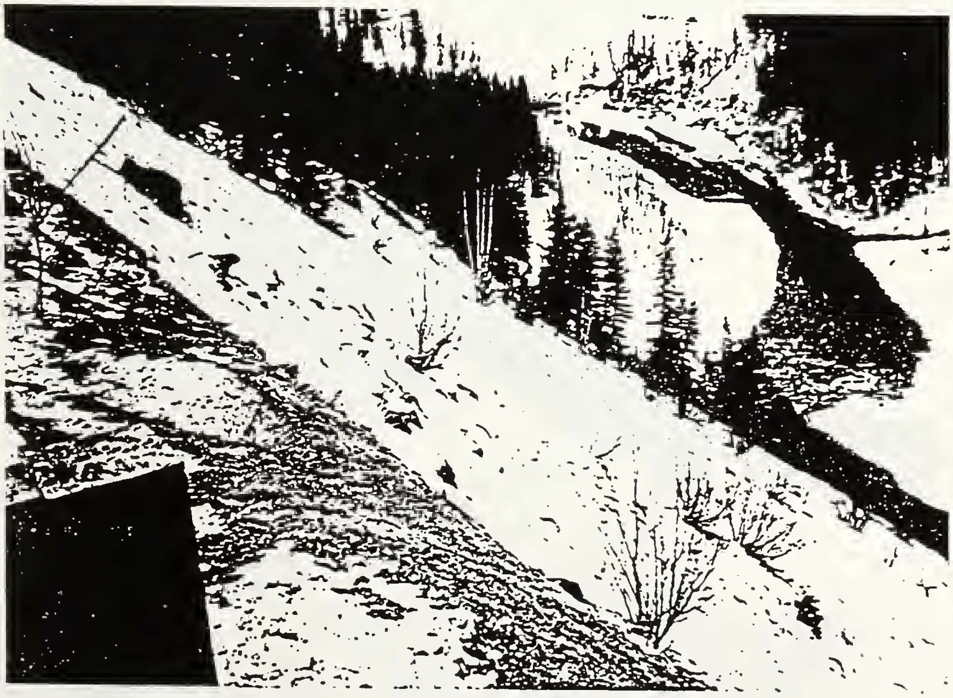
- All large spills of potentially hazardous materials causing gross contamination (i.e., equipment tank failure, petroleum container failure, etc.) should be immediately reported to the on-site supervisor. Every attempt should be made to contain the spill with containment booms as applicable (i.e., place containment booms around a surface spill or down gradient of river contamination, etc.). The on-site supervisor shall be responsible for coordinating the response action and/or determining if off-site assistance is required.

APPENDIX A

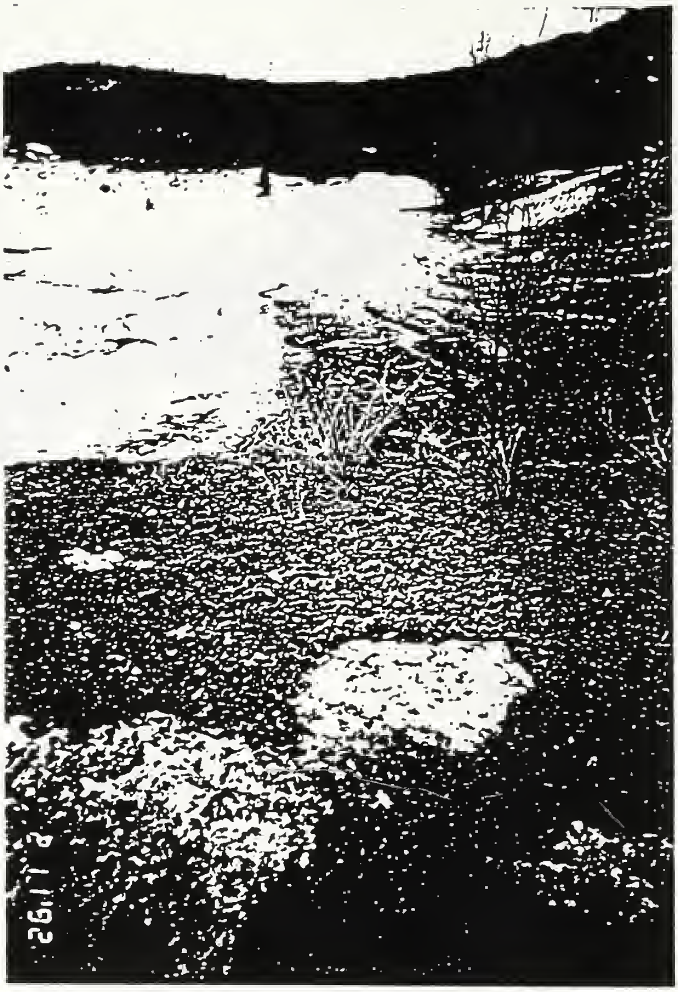
PHOTOGRAPH LOG



#1 Goat Lick Retaining Wall Construction Area
From North Bridge



#2 Slope to Middle Fork of Flathead River, Looking Southwest



#3 Slope to Middle Fork of Flathead River, Looking West

#4 Slope to Middle Fork of Flathead River, Looking Northwest

APPENDIX B

RECORD OF TELEPHONE CONVERSATION

MSE, INC.
P.O. Box 4078
Butte, MT 59702
(406) 723-8213

MSE, INC.
COMPONENT DEVELOPMENT
INTEGRATION FACILITY (CDIF)
P.O. Box 3767
Butte, MT 59702
(406) 494-7100

RECORD OF TELEPHONE CONVERSATION

Sheet 1 of 1
Date: 2/6/92
Time: 0900

From: T Adams
Title:
Company: MSE

Party Called: Larry Brazda
Title: 755-5717
Company: MDT - Kalispell

I called Larry to set up a time & date to meet RE: Goat lick project. Meeting was set for 2/11/92, 0900 @ Kalispell office. Larry suggested letting Beth Burren of USFS + Bob Dunkley of Glacier Park know & see if they would be interested in joining in meeting. I stated I would call Beth + Bob & inform them of the meeting.

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Butte, MT 59702
(406) 494-7100

RECORD OF TELEPHONE CONVERSATION

Sheet 1 of 1
Date: 2/6/92 + 2/7/92
Time: 0930 0745

From: T Adams
Title:
Company: MSE

Party Called: Beth Burren
Title: 387-5243
Company: USFS

0930 Beth was in a "Care Wise" meeting until after 1230. I left a message + said I would call back tomorrow a.m.

745 I asked Beth if she wanted to attend meeting, she said no. I asked her if she could explain her concerns to me RE: Goat Lick retaining wall. She stated the USFS is concerned with

- equipment fluid leaks into river causing pollution + fish kills
- what actions can + will be taken if equipment &/or supplies go into river, because bank is steep + diffi must be assessed
- spills of vehicle/equipment fluids on road +/or river ba

anything that could adversely affect wildlife + the sensitive habitat in the area. Beth stated that I should speak

~~Distribution:~~

with Kim Potter @ Flathead County who is with the Hazmat team. Beth also stated she would like to see a draft of the document before it becomes final. I stated I would let Larry + Eddie Vinson know of her request and distribution would be up to them.

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RECORD OF TELEPHONE CONVERSATION

Sheet 1 of 1
Date: 2/6/92 & 2/13/92
Time: 0845 1045

From: T Adams	Party Called: Bob Dunkley
Title:	Title: 888-5441
Company: MSE	Company: Glacier Park

6/92
45 - not in, left message to return my call, also stated in message ~~that~~ meeting would be held on Feb-11, '92, @ Larry Brayda's office if he wanted to attend.

13/92
45 - asked Bob his concerns RE: Goat Lick project. Bob stated Glacier Park officials are concerned with:

- the timing of the project, because goats run in spring/summer, should be scheduled b/ 15 Aug & 1 Mar '92
- visual impacts, because is in wild scenic river corridor, final appearance should be compatable with existing terrain
- visitor/traveler use, Traffic flow must be maintained, 1 lane open @ all times
- erosion control into river as a result of project, minimizing disturbance to slope & keep hazardous materials from construction from going into river & on to ~~slope~~
- keep equipment & people from falling into river
- keep majority of work on road vs slope
- a grizzly + wolve area, not critical area but important, ∴ need chemical toilets, & must dispose of garbage daily
- salt materials could be attractive to animals; for example antifreeze boilovers on Going-to-The-Sun Rd ~~attract~~ goats & is very harmful, ∴ need to keep ~~this~~ off road @ Goat Lick

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In general, anything that could be detremental to the wildlife, river &/or traffic flow of tourists concerns the park.

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RECORD OF TELEPHONE CONVERSATION

Sheet 1 of 1
Date: 2/13/92
Time: 1015 1030

From:	T Adams	Party Called:	Kim Potter
Title:		Title:	752-5300
Company:	MSE	Company:	Flathead County Disaster & Emergency Response

1015 - Left message on machine to call me back.

1030 - Kim returned my call. I asked him about the response abilities Flathead County has. Kim told me they have sorbent materials & 3M booms @ Essex & W. Glacier. Essex has a response team also. They would use booms for gross contamination spills, but the 3M super-sorb pads work great for sheens on H_2O surfaces. They only have a small amount of the pads however.

For medical emergencies, Ron Sellens in Essex @ 888-5650 is the contact, works @ the half-way house.

A medic-alert helicopter has a 10-12 minutes 20 minutes @ outside, response time from Kalispell. Life support & emergency rescue team capabilities

Kyle Johnson - Ranger @ W. Glacier & Gil Lusk are contacts.

As far as heavy equipment removal, Kim thought Columbia Fall or Kalispell would have closest wrecker for moving big equipme

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RECORD OF TELEPHONE CONVERSATION

Sheet 1 of 1

Date: 2/13/92 2/21/92 2/24/

Time: 1100 1045 08

From: T Adams

Party Called: Lisa Fairman

Title:

Title: 444-6258

Company: MSE

Company: Env + Haz Waste Bureau

3 1100 she is out till Tues; left a message but will call her back

/4 1045 she will be out all day; left a message for her to call me back

24 0830 Lisa returned my call. I asked her about her concerns RE: Goat
Lick retaining wall. Lisa stated her concerns where more directed @
some of the things she had heard brought up. specificall a contingency
plan for spilt materials & large equipment going into the River.
She is also concerned about what type of equipment is to be use because
bears have been know to be attracted to petroleum products and special
care should be taken to reduce the availabilit of used &/or new
product. Lisa informed me that bear proof containers are available,
and have been offered by Jim Tillmont, head of Resources @ the park,
in Essex, Lisa stated Mr Tillmont said he could provide
what ever was needed for bear-proof containers.

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RECORD OF TELEPHONE CONVERSATION

Sheet 1 of 1
Date: 2/13/92
Time: 1330

From: T Adams
Title:
Company: MSE

Party Called: Shiv Batra
Title: 206-635-1000
Company: Inca Engineering

I asked Shiv about what types of equipment he felt would be used on the Goat Lick project. Shiv stated that they were still in the design phase and they only do the design & the contractor chosen to do the work would be the one to speak with about the equipment specs. & what equipment would be required to do the job. Shiv stated that in ~2 weeks the design should be completed and @ that time he would be happy to connect me with the contractor who is awarded the bid.

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Butte, MT 59702
(406) 494-7100

RECORD OF TELEPHONE CONVERSATION

Sheet 1 of 1
Date: 2/13/92 2/20/92
Time: 1030

From: T Adams
Title:
Company: MSE

Party Called: Derek Cornforth
Title: L 503-684-3202
Company: Landslide Tech

2/13/92 - out until Monday, 2/17/92, left message to call back
2/20/92 - 1030 - not in yet, stated would call back this afternoon
1420 - not in, out to lunch, will call back later

Distribution:

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MONTANA DEPT. OF TRANSPORTATION
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HELENA, MONTANA

U.S.Department
of Transportation
**Federal Highway
Administration**
Montana Division

301 South Park Street
Room 448
Helena, Montana 59626

February 12, 1992

HPP-MT

U.S. Department of the Interior
National Park Service
Glacier National Park
West Glacier, Montana 59936

Subject: F 1 - 2(59)182 Goatlick Slide
Reinforced-Earth Retaining Wall
P.M.S. Control #1958

The Federal Highway Administration (FHWA), in cooperation with the Montana Department of Transportation (MDT), proposes to develop an Environmental document for the subject project. The project will repair the existing reinforced-earth retaining wall on U.S. Highway 2, along the southerly edge of Glacier National Park.

This project is located on U.S. 2, approximately 2 miles southeasterly of the unincorporated community of Essex, Montana on the southeasterly perimeter of Glacier National Park between Mileposts 182.3± and 182.4±. The reinforced-earth retaining wall parallels the southwesterly side of the road between the goat underpass and the Snowslide Gulch bridge. This is within the N.W.¼ of the S.E.¼ of Section 24, Township - 29 - North, Range - 16 - West, Montana Principal Meridian.

The **National Park Service** has jurisdiction by law over this proposed action as defined by 40 CFR 1500.15. Specifically, this jurisdiction occurs on the proposed project location. Therefore, FHWA formally requests the **National Park Service** to be a Cooperating Agency.

MDT has provided copies of the Preliminary Field Review Report describing the project, and a Project Location Map showing its location. Two sets are enclosed, and additional copies are available on request. The following environmental issues have been identified by the FHWA and MDT:

> Natural Resources; Threatened and/or Endangered Species; and Visual Appearance.

MDT will conduct the following activities to maximize Cooperating Agency participation. These activities are also part of MDT policy on enhancing environmental awareness through interagency coordination (a copy of MDT environmental policy is enclosed):

c. Organize coordination meetings and joint field reviews;

b. Provide available information on the proposed action; and

c. Provide the opportunity to review and comment on the preliminary (ROUGH DRAFT) environmental documents on the proposed project prior to publication/distribution.

FHWA requests the following information from the **National Park Service** as a Cooperating Agency:

1. The approved environmental document will comply with one of these three NEPA classes of actions: Class I - Environmental Impact Statement; Class II - Categorical Exclusion; or Class III - Environmental Assessment. The environmental document recommended for this project is an Environmental Assessment. At this time it is stressed that this is only a suggested classification.

   Do you believe that this suggested classification will be adequate for your agency's requirements under NEPA? Cooperating Agencies have the obligation to inform FHWA if the document requires a change in NEPA classification at any time during the project's development or if additional analysis is needed to meet your agency's requirements.

2. FHWA requests your comments, questions, and/or specific environmental concerns about this proposed action including suggestions on joint efforts to mitigate unavoidable environmental impacts, and ways to enhance environmental quality wherever possible.

3. Does your Agency have any actions planned or under way in the proposed project vicinity that could affect, or be affected by this proposed action? Is/are there any proposed or current actions by others (public or private agencies) that pose similar effects?

4. Land under your jurisdiction adjoining the project may be classified as "Section 4(f) Lands" from the 1966 U.S. Department of Transportation Act (49 U.S.C. 303). This classification applies to lands used and/or designated as any of the following:

a. Parks and/or Recreation Areas;

b. Wildlife/Waterfowl Refuges;

c. Sites eligible for inclusion, or in the National Register of Historic Places (under Section 106 of the National Historic Preservation Act, 16 U.S.C. 470); and/or

d. Lands managed as multiple use for recreation, or wildlife/waterfowl management and under statute(s) providing for same.

Could the property adjacent to, or within this proposed project be classified as a "Section 4(f)" site? If so, which of the preceding criteria apply?

5. Does your Agency have a "master plan" which includes the transportation systems for the area under its jurisdiction? If so, will this proposed action have any effect on this plan? MDT respectfully request a copy of this plan to assist in determining the scope of impacts of this and any future projects in the area.

6. The name, mailing address, and office phone number of the lead agencies' contacts are:

Dale W. Paulson,
Environmental & Project Development Engineer
FHWA - Region 8, Montana Division
301 South Park, Drawer 10056
Helena, MT 59626
(406) 449-5310; FTS 585-5310; FAX (406) 449-5349

Gordon L. Larson, P.E.
Assistant Administrator - MDT Highways Division
2701 Prospect Avenue
Helena, MT 59620
(406) 444-6003; FAX (406) 444-6363

FHWA has also requested the U.S. Department of the Interior, Fish & Wildlife Service (USF&WS), to join as a Cooperating Agency. The USF&WS is recognized as having special expertise in the Threatened and/or Endangered Species environmental concerns.

FHWA requests that preliminary documents and correspondence between Cooperating Agencies be kept confidential under the Freedom of Information Act (FOIA) Exemption 5 on intergovernmental exchanges. Premature release of this material could give those with access to it an unfair advantage over the rest of the public. This also encourages special interest groups attempting to influence the decision-making process at inappropriate times.

Therefore, in the course of processing preliminary environmental documents, any comments, reports and/or findings on same, as well as the documents themselves should be withheld when premature release could interfere with the deliberative process. A statement to this effect will be included with copies of the preliminary (ROUGH DRAFT) environmental document provided to each Cooperating Agency.

FHWA and MDT are looking forward to the **National Park Service** being a Cooperating Agency in the development of this project. It is the policy of the Montana State Highway Commission and the MDT to seek and expand opportunities to contribute to a healthier and more attractive environment.

These goals will be achieved for Montana's present and future generations through construction and management of Montana's transportation network. As a Cooperating Agency, FHWA and MDT ask the **National Park Service's** assistance in the meeting the goals of this policy.

A copy of FHWA's "GUIDANCE on COOPERATING AGENCIES" is also enclosed.

Sincerely,

Hank D. Honeywell
Division Administrator

Enclosures

c: State - Edrie Vinson

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HELENA, MONTANA

U.S. Department
of Transportation
**Federal Highway
Administration**
Montana Division

301 South Park Street
Room 448
Helena, Montana 59626

February 14, 1992

HPP-MT

U.S. Department of the Interior
Fish & Wildlife Service
Federal Building, 301 South Park
Post Office Box 10023
Helena, Montana 59626

Subject: F 1-2(59)182 Goatlick Slide
Reinforced-Earth Retaining Wall
P.M.S. Control #1958

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The proposed project is located on U.S. 2, approximately 2 miles southeasterly of the unincorporated community of Essex, Montana on the southeasterly perimeter of Glacier National Park between mileposts 182.3± and 182.4±. The wall parallels the southwesterly side of the road between the goat underpass and the Snowslide Gulch bridge. This is within the N.W.¼ of the S.E.¼ of Section 24, Township - 29 - North, Range - 16 - West, Montana Principal Meridian.

The **U.S. Fish & Wildlife Service** is recognized as having special expertise on environmental issues concerning this proposed action. Specifically, this special expertise is on Threatened and/or Endangered Species which have been identified as being in this proposed action area (see copy of enclosed letter dated December 11, 1991 on this project). Therefore, FHWA formally requests the **U.S. Fish & Wildlife Service** to be a Cooperating Agency.

MDT has provided copies of the Preliminary Field Review Report describing the project, and a Project Location Map showing its location. A set is enclosed, and additional copies are available on request. The following environmental issues concerning this project have been identified by the MDT:

> Natural Resources; Threatened and/or Endangered Species; and Visual Appearance

MDT will conduct the following activities to maximize Cooperating Agency participation. These activities are also part of MDT policy on enhancing environmental awareness through interagency coordination (a copy of MDT environmental policy is enclosed):

a. Organize coordination meetings and joint field reviews;

b. Provide available information on the proposed action; and

c. Provide the opportunity to review and comment on the preliminary (ROUGH DRAFT) environmental documents on the proposed project prior to publication/distribution.

MDT requests the following information from the **U.S. Fish & Wildlife Service** as a Cooperating Agency.

1. The approved environmental document will comply with one of these three NEPA classes of actions: Class I - Environmental Impact Statement; Class II - Categorical Exclusion; or Class III - Environmental Assessment. The environmental document recommended for this project is an Environmental Assessment. At this time it is stressed that this is only a suggested classification.

   Do you believe that this suggested classification will be adequate for your agency's requirements under NEPA? Cooperating Agencies have the obligation to inform the FHWA if the document requires a change in NEPA classification or if additional analysis is needed to meet your agency's regulatory requirements at any time during the project's development.

2. MDT requests your comments, questions, and/or specific environmental concerns about this proposed action. This includes suggestions on joint efforts to mitigate unavoidable environmental impacts, and ways to enhance environmental quality wherever possible.

3. Does your Agency have any actions planned or under way in the proposed project's vicinity that could affect, or be affected by this proposed action? Is/are there any proposed or current actions by others (public or private agencies) that pose similar effects?

4. Does your agency have a "master plan" which includes the transportation systems for the area under its jurisdiction? If so, will this proposed action have any effect on this plan? MDT respectfully request a copy of this plan to assist in determining the scope of impacts of this and any future projects in the area.

5. The name, mailing address, and office phone number of the lead agencies' contacts are:

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Gordon L. Larson, P.E.
Assistant Administrator - MDT Highways Division
2701 Prospect Avenue
Helena, MT 59620
(406) 444-6003; FAX (406) 444-6363

FHWA has also requested the U.S. Department of the Interior, National Park Service (NPS), to join as a Cooperating Agency in this proposed action.

FHWA requests that preliminary documents and correspondence between Cooperating Agencies be kept confidential under the Freedom of Information Act (FOIA) Exemption 5 on intergovernmental exchanges. Premature release of this material could give those with access to it an unfair advantage over the rest of the public. This also encourages special interest groups attempting to influence the decision-making process at inappropriate times.

Therefore, in the course of processing preliminary environmental documents, any comments, reports and/or findings on same, as well as the documents themselves should be withheld when premature release could interfere with the deliberative process. A statement to this effect will be included with copies of the preliminary (ROUGH DRAFT) environmental document provided to each Cooperating Agency.

FHWA and MDT are looking forward to the **U.S. Fish & Wildlife Service's** role as a Cooperating Agency in the development of this project. It is the policy of the Montana State Highway Commission and MDT to seek and expand opportunities to contribute to a healthier and more attractive environment.

These goals will be achieved for Montana's present and future generations through construction and management of Montana's transportation network. As a Cooperating Agency, FHWA and MDT ask the **U.S. Fish & Wildlife Service's** assistance in the meeting the goals of this policy.

A copy of FHWA's "GUIDANCE on COOPERATING AGENCIES" is also enclosed.

Sincerely,

[illegible] by
[illegible] MILLER

Hank D. Honeywell
Division Administrator

Enclosure

c: State - Edrie Vinson

United States Department of the Interior

NATIONAL PARK SERVICE
GLACIER NATIONAL PARK
WEST GLACIER, MONTANA 59936
(406) 888-5441
FAX: (406) 888-5581

IN REPLY REFER TO:
D30 (GLAC)

February 25, 1992

Mr. Doug Morgan, P.E.
Consultant Design Section
Montana Department of Transportation
2701 Prospect Avenue
Helena, Montana 59620

Dear Mr. Morgan:

This is in response to your letter of February 18, 1992 where you requested that the time frame for the start-up of work on the Goat Lick Retaining Wall be moved up to July 1. We are in agreement that the time frame for the contract work should be changed to July 1 to November 1. However, we are still concerned that the construction activity may adversely affect the goats, and recommend that the work that would cause the most disturbance be delayed as late as possible. We understand that actual drilling and pouring of the concrete piers will not occur until July 15.

We also see a need to have a biologist on site while the work is going on to monitor the effects of construction on the goats. We have used this approach successfully on the initial Goat Lick construction and on several Federal Highway Administration projects in the park recently. We request that the monitoring be funded as a part of the construction project.

Thank you for this opportunity to provide our input. Should you have any questions, please contact Mr. Bob Dunkley of our staff.

Sincerely,

Acting For

H. Gilbert Lusk
Superintendent

Art
file

Montana Department of Transportation
2701 Prospect Avenue
Helena, MT 59620-9726

Stan Stephens, Governor

March 13, 1992

Robert Dunkley, Landscape Architect
National Park Service
Glacier National Park
P.O. Box 128
West Glacier, MT 59936

[redacted]

Subject: F 1-2(59)182
Goat Lick Retaining Wall
Control No. 1958

Your concurrence to our request for the extension of the construction period for this project is appreciated.

We regret to have given you the understanding that the Montana Department of Transportation will hire and assign to the site a Biologist for the duration of the construction. However, after some discussion, we have decided to provide a Biologist; but we will need from you the following information so that a suitable provision may be prepared for a construction contract:

1) Purpose and/or justification for the need for a Biologist on the site during construction.
2) The scope of his/her duties while at work.
3) Would a final Report be required at the conclusion of the project?
4) The requirements as to the qualifications of the Biologist.

You are requested to provide the above information by March 30, 1992.

Samuel A. Naseem
for Doug Morgan, P.E.
Consultant Design Section

39:DM:SAN:D:CD:74.dlw

cc: T.J. Barnard, Administrator - Engineering, w/att.
G.L. Larson, Asst. Administrator - Engineering, w/att.
D.S. Johnson, Preconstruction Engineer, w/att.
C.S. Peil, Asst. Preconstruction Engineer, w/att.
R.D. Morgan, Consultant Design Engineer, w/att.
J.T. Weaver, District Engineer, Missoula, w/att.
T.L. Yarger, Geotechnical Engineer, w/att.
✓ E.L. Vinson, Environ. & Hazardous Waste Bureau, w/att.
Ron Van Atta, US Forest Service, Kalispell, w/att.
Allen Radliff, Field Operations Engineer, FHWA, w/att.

United States Department of the Interior
NATIONAL PARK SERVICE
GLACIER NATIONAL PARK
WEST GLACIER, MONTANA 59936
(406) 888-5441
FAX: (406) 888-5581

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:

D30 (GLAC)

March 31, 1992

Mr. Hank D. Honeywell
Division of Administrator
U.S. Department of Transportation
Federal Highway Administration
Montana Division
301 South Park Street, Room 448
Helena, Montana 59626

Dear Mr. Honeywell:

This is in response to your February 12, 1992 letter requesting information on and our participation as a cooperating agency in the planning and design processes for the reconstruction of the Goatlick Slide Reinforced-Earth Retaining Wall on U.S. Highway 2 in Glacier National Park. We would be pleased to join as a cooperating agency for this project and agree to your request that we keep preliminary documents and correspondence confidential during the planning process. The specific information you requested is provided as follows:

1. Based on our understanding of the preliminary engineering design concepts we have seen to date, we concur with your suggested classification of this project needing only an environmental assessment. This is consistent with other road work of this type done in Glacier National Park. Should the scope of the proposals change significantly, we would need to review and possibly revise our opinion on this.

2. In addition to the natural resources, threatened and/or endangered species, and visual appearance issues listed in your letter, we are concerned about the wild and scenic river values described in the enclosed record of our review meeting with the Forest Service. We are also concerned about the visitor use impacts of the proposed construction, especially concerning the maintenance of uninterrupted traffic flow, safety, the possible resultant increase of traffic on the Going-to-the-Sun Road and any Park Service maintenance activities that might result from the construction.

We have discussed several measures with the Montana Department of Transportation that we believe will act to mitigate the possible adverse impacts of this project. They include limiting the construction period to between July 1 and November 1, provision of funding for the National Park Service to hire a biologist to monitor the effects of the work on wildlife, use of compatible materials to blend the reconstructed wall with the environment and existing adjacent wall structures, maximum utilization of the road surface and shoulder to avoid impact to the steep slope between the road and the river, utilization of the road ditch and shoulder to assure the continuation of two-way traffic on U.S. Highway 2 to the maximum degree possible, disposal of debris and waste materials at approved locations outside the park, cleaning of construction equipment and vehicles to avoid the introduction and spread of exotic vegetation, and adequate safety provisions related to the project for visitors travelling on the highway.

3. The National Park Service does not have any actions planned or under way that we believe would affect the proposed reconstruction of this retaining wall.

4. The project site should be classified as a "Section 4 (f) site" since Glacier National Park falls within the park category defined in Section 4 (f) of the 1966 U.S. Department of Transportation Act.

5. Glacier National Park recently completed a Transportation Plan for the park road system. A copy has already been furnished to the Montana Department of Transportation. We do not feel that the proposed reconstruction of the Goatlick wall will have an affect on this plan.

We appreciate this opportunity to furnish our input and cooperate with the Federal Highway Administration and the Montana Department of Transportation in this project. Should you have any questions regarding our comments, please contact Mr. Bob Dunkley at (406) 888-5441.

Sincerely,

H. Gilbert Lusk
Superintendent

Enclosure

cc:
Mr. T.J. Barnard, MDOT, Engineering
Mr. R.D. Morgan, MDOT, Consultant Design Engineer
Mr. Art Jacobsen, MDOT, Environmental Section
Mr. Ron Vanetta, USFS, Kalispell
Mr. Fred Flint, USFS, Hungry Horse

D30 (GLAC)

February 3, 1992

Memorandum

To: Assistant Superintendent, Glacier

From: Landscape Architect, Glacier

Subject: Review of Wild and Scenic River Values,
Goat Lick Retaining Wall Repair

A meeting was held on January 29, 1992, at the Hungry Horse Ranger District Office to review the subject values. Attending were Ms. Burren and Messrs. Vanetta and Flint of the Flathead National Forest, and Messrs. Michels and Dunkley of Glacier National Park.

The values for which this portion of the river were designated were discussed in light of our understanding of the proposed wall repair as follows:

1. Geologic. The Goat Lick mineral outcropping was described as the only significant geologic feature in the area. It was felt that there would be no adverse effect from the proposed wall repair work.

2. Wildlife. Mountain Goats are the major wildlife species of concern that frequents the project area. Measures have already been included in the scope of work to avoid disturbance to them such as providing for construction only during the 15 August-1 November period when goat use is slight. There are expected to be no effects on T&E species.

3. Cultural. There are no known cultural sites or materials within the project area. Since the construction will most likely be confined to the previously disturbed road prism, effects on cultural sites is not anticipated.

4. Scenic. Scenic values are of concern, primarily from the viewpoints of the river and the railroad within the Wild and Scenic River corridor. However, it was noted that river recreational use is low in the late summer and fall when the construction is scheduled. It was decided to propose the following measures to assure that the scenic qualities of the corridor are not diminished by the proposed repair work:

a. Materials that are visually compatible with the existing wall should be used.
b. Disturbance to the slope adjacent to the wall should be minimized.
c. Appropriate revegetation and slope restoration should be a part of the work.

Ms. Burren and Messrs. Dunkley Vanetta and Gordon also attended a project review meeting on January 30, 1992 where many of these issues were discussed.

Should you have any questions about this project, please give me a call.

Bob Dunkley

RECEIVED
AUG 07 1992
ENVIRONMENTAL

United States Department of the Interior
NATIONAL PARK SERVICE
GLACIER NATIONAL PARK
WEST GLACIER, MONTANA 59936
(406) 888-5441
FAX: (406) 888-5581

TAKE PRIDE IN AMERICA

CC: Barry

IN REPLY REFER TO:
D30 (GLAC)

MASTER FILE
COPY

F1-2(59)182
(C# 1956)

August 3, 1992

Mr. Doug Morgan, P.E.
Consultant Design Engineer
Montana Department of Transportation
2701 Prospect Avenue
Helena, Montana 59620-9726

Dear Mr. Morgan:

Thank you for the information that was provided at the recent meeting at your office on the Goat Lick Retaining Wall project. After some consideration by our staff, we would like to furnish some preliminary comments.

We are most interested in a solution to the highway needs that allows the natural processes to function to the extent possible. This includes the wildlife, the river and the slide itself. We see serious impacts from major changes in any of these processes. For example, changing the course of the river in the area of the slide could cause adverse downstream impacts on the Goat Lick, railroad, and possibly affect water quality.

At this point, we favor the bridge alternative because it seems to best address preservation of the natural processes. We recognize that there are concerns about the slide extending laterally along the highway, and affecting the bridge abutments. However, we feel that these concerns could be addressed through the design of the footing system.

We appreciate this opportunity to furnish our comments on the preliminary alternatives. We look forward to working with the Montana Department of Transportation as the work on this project progresses. Should you have any questions or concerns, please let me or our Federal Highway Coordinator, Mr. Bob Dunkley, know.

Sincerely,

Acting for

H. Gilbert Lusk
Superintendent

cc:
RMR-PP, Ms. Turk
Flathead National Forest, Mr. Van Natta

Date Recd. Preconst.
MAIL ROUTE
Initial
Attach
30 Preconst Engr
30 Assistant
30 Office Mgr
31 Safety Mgmt.
32 Road Design
33 Environment
34 Hydraulics
35 Survey & Mapping
36 Traffic Eng.
37 Traffic Operations
39 Consultant Dsn.
Materials
Missoula Dist.
Asst. Adm. Engr.
Info
Act

D. L. Vinson

Montana Department of Transportation
2701 Prospect Avenue
Helena, MT 59620-9726
Stan Stephens, Governor

September 3, 1992

Bill Harper, Assistant Director
TRANSPORTATION SYSTEMS ENGINEERING
USDA - Forest Service Region #1 office
Federal Building, P. O. Box 7669
Missoula, MT 59807

Subject: F 1 - 2(59)182
GoatLick Slide, U.S. #2 - Glacier National Park
(P.M.S. C#1958)

This is to request the USDA - Forest Service to be a Cooperating Agency on this proposed project in accordance with the provisions of 23 CFR 771.111(d). This proposed project is located on an easement within Glacier National Park on U.S. Highway #2 (FAP 1) at Milepost 182.4±. This is in the N.W. ¼ of the S.E. ¼ of Section 24; Township - 29 - North, Range - 16 - West; M.P.M.

This proposed project involves stabilizing a slide area immediately below the FAP 1 alignment. This slide is along the right (easterly) bank of the Middle Fork of the Flathead River. The river is the boundary between the Flathead National Forest and Glacier National Park, and is also a component of the National Wild & Scenic River system (administered by the National Forest on this river).

A copy of the Project Location Map, "translite" print, and the latest consultant's report for this proposed project are enclosed. Work on this proposed project was initially intended to avoid the River. However, based on recent geological evidence and engineering design studies it now appears that riprap and possibly some channel work on this River in the slide area may be necessary.

The Forest Service has jurisdiction by law over the Middle Fork of the Flathead (Wild & Scenic) River, which now may be impacted by this proposed project under "Option 4". It is also understood that any impacts on the Middle Fork of the Flathead River by this or any future project related to this slide area will require a U.S. Department of Transportation Act - *Section 4(f) Evaluation* under 49 U.S.C. 303. This will include measures to minimize harm as agreed between the Forest Service and the U.S. Department of Transportation's Federal Highway Administration (FHWA).

A "ROUGH DRAFT" of an Environmental Assessment on this proposed project was prepared and distributed early in May of this year. This document will be revised to include the latest engineering proposals and related environmental impacts when further studies have been made on the options to take remedial action on this problem. The Forest Service will be included on the distribution for this ROUGH DRAFT document and will have an opportunity to comment on same.

At this time the preferred alternative has been identified as "Option 2." If the Forest Service has any comments on the proposed design for this Option, they need to be received by MDT no later than September 11, 1992.

Please contact Gordon L. Larson, P.E., the Assistant Administrator of MDT Highways Division - Engineering at the address on the letterhead, or call 444-6003 for concerns about the proposed designs. Please contact this Bureau at this same address, or call 444-7228 if there are any questions concerning environmental issues.

Edrie Vinson

Edrie L. Vinson, Chief
Environmental & Hazardous Waste Bureau

ELV:ASJ:**1958-FSCA.LET**

Enclosures

cc: James T. Weaver, P.E. - MDT Missoula District (#1) Engineer
Gordon L. Larson, P.E. - MDT Highways Division Assistant Administrator
David S. Johnson, P.E. - MDT Preconstruction Engineer
Thomas E. Martin, P.E. - MDT Right-of-Way Engineer (acting)
James R. Beck, Chief Counsel - MDT Legal Services
Edrie L. Vinson, Chief - MDT Environmental & Hazardous Waste Bureau
Dale W. Paulson, FHWA - Montana Division Environmental Coordinator
Ron vanNatta, USDA - Flathead National Forest Engineer (w/enclosures)
Beth Burren, USDA - F.N.F./Hungry Horse Ranger District (w/enclosures)

United States Department of Agriculture
Forest Service
Region 1
Federal Building
P.O. Box 7669
Missoula, MT 59807

SEP 21 1992

Reply to: 7720/2730

Date: September 14, 1992

MASTER FILE COPY

Ms. Edrie L. Vinson, Chief
Environmental & Hazardous Waste Bureau
Montana Department of Transportation
2701 Prospect Avenue
Helena, MT 59620-9726

Dear Ms. Vinson:

This is in response to your September 3 letter to Bill Harper concerning the Goat Lick Slide, U.S. Highway 2 project. Our response has been coordinated to include comments received from Flathead National Forest and Hungry Horse Ranger District.

The Forest Service looks forward to being a Cooperating Agency in the planning and design of this project. We feel that the procedures outlined in the current version of the FS/MDT/FHWA MOU should be used in its coordination. We would like you to work with Ron Van Natta, of the Flathead National Forest, concerning the updating of the NEPA document. Ron can be reached at 1935 Third Avenue East, Kalispell, MT 59901, or by phone at (406) 758-5239. Mr. Van Natta will in turn coordinate with the Forest personnel involved.

Based on a review of the MDT's earlier project proposal for repairs at this site, we did not feel that a Wild and Scenic Rivers Act, Section 7(a) determination would be required. While the MDT's proposed Option 2, itself, does not appear to be a project that would require a Section 7(a) determination, Option 4 would definitely require a Section 7(a) determination.

The Wild and Scenic Rivers Act, Section 7(a) requires the Forest Service to evaluate and make a determination of what effects the proposed project would have on the values for which the Middle Fork of the Flathead River was established as a component of the Wild and Scenic Rivers System. These values include wildlife, fisheries, water quality, recreation, and geological. We are required to make the determination in compliance with the National Environmental Policy Act (NEPA). To our knowledge, there have been no other Montana State Highway projects in recent history that involved a Section 7(a) determination. This determination is more involved and will require much more analysis, coordination, involvement, and documentation than the usual State highway projects. A Section 7(a) determination is different and would likely change the Forest Service involvement, requirements, and roles and responsibilities from those contained in our MOU.

We believe that the MOU coordination procedures we have agreed upon are adequate for pursuing Option 2. However, if Option 4 has been, or is to be, considered in addition, or as a followup, to Option 2, we need to meet and discuss the Section 7(a) requirements. A field trip to review the proposed work and discuss the requirements of a Section 7(a) determination may be necessary. Please let us know your thoughts and plans in regard to implementation of Option 4 and whether or not you feel a field review is necessary.

Sincerely,

for BERYL JOHNSTON
Director of Engineering

cc:
Flathead NF - R.Van Natta, L.Reesman
LM - D.O'Brien, B.Allen
Hungry Horse RD
WRCR - J.Drake

United States Department of the Interior

NATIONAL PARK SERVICE
GLACIER NATIONAL PARK
WEST GLACIER, MONTANA 59936
(406) 888-5441
FAX: (406) 888-5581

TAKE PRIDE IN AMERICA

NOV 25 1992

IN REPLY REFER TO:
F 1-2(59)182 α#1958
D30 (GLAC)

CC: G.L. Larson
Jim Weaver
W. S. Johnson

November 23, 1992

Ms. Edrie L. Vinson, Chief
Environmental and Hazardous Waste Bureau
Montana Department of Transportation
2701 Prospect Avenue
PO Box 201001
Helena, Montana 59620-1001

Dear Ms. Vinson:

This is in response to your October 21, 1992, letter requesting our participation as a cooperating agency in the planning and design processes for the reconstruction of the Goatlick Slide Reinforced-Earth Retaining Wall on U.S. Highway 2 in Glacier National Park. We would be pleased to join as a cooperating agency for this project, and agree to your request that we keep preliminary documents and correspondence confidential during the planning and design processes. Our participation is subject to the following:

1. Based on our understanding of the preliminary engineering design concepts we have seen to date, we concur with your proposal that this project will need only an environmental assessment. This is based on not including ripraping on the toe of the slope below the slide in the reconstruction project. Should the scope of the proposal change significantly, we would need to review and possibly revise our opinion on this.

2. We request that you include the several measures we have discussed with the Montana Department of Transportation over the past year. We believe that they will act to mitigate the possible adverse impacts of this project. Included are:

- limiting the construction period to between 1 July and 1 November;
- provision of funding for the National Park Service to hire a biologist to monitor the effects of the work on wildlife;
- use of compatible materials to blend the reconstructed wall with the environment and existing adjacent wall structures;
- maximum utilization of the road surface and shoulder to avoid impact to the steep slope between the road and the river;
- utilization of the road ditch and shoulder to assure the continuation of two-way traffic on U.S. Highway 2 to the maximum degree possible;

- disposal of debris and waste materials at approved locations outside the park;
- cleaning of construction equipment and vehicles to avoid the introduction and spread of exotic vegetation; and
- adequate safety provisions related to the project for visitors travelling on the highway.

3. The National Park Service does not have any actions planned or underway that we believe would affect the proposed reconstruction of this retaining wall.

4. The project site should be classified as a "Section 4 (f) site" since Glacier National Park falls within the park category defined in Section 4 (f) of the 1966 U.S. Department of Transportation Act.

5. Glacier National Park recently completed a Transportation Plan for the park road system. A copy has already been furnished to the Montana Department of Transportation. We do not feel that the proposed reconstruction of the Goatlick wall will have an effect on this plan.

We appreciate this opportunity to furnish our input and cooperate with the Montana Department of Transportation and the Federal Highway Administration on this project. Should you have any questions regarding our comments, please contact Mr. Bob Dunkley at (406) 888-5441.

Sincerely,

H. Gilbert Lusk

H. Gilbert Lusk
Superintendent

cc: Mr. Gordon L. Larson, MDOT, Engineering
Mr. Dale W. Paulson, FHWA, Helena
Mr. Doug Morgan, MDOT, Consultant Design Engineer
Mr. Ron Vanetta, USFS, Kalispell
Mr. Duane Holmes, RMR-PL

E. L. Vinson

Montana Department
of Transportation

2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

Marc Racicot, Governor

January 12, 1993

U.S. Fish & Wildlife Service
Federal Building, 301 South Park
Post Office Drawer 10023
Helena, MT 59626

Attention: Robert Hazelwood,
Senior Staff Biologist

Subject: F 1 - 2(59)182
Goatlick Slide (U.S.#2, Glacier Park)
P.M.S. Control #1958

Enclosed is a ROUGH DRAFT copy of the Environmental Assessment on this proposed project. Please review this document, and return it to this office at the earliest convenience if there are any comments. Please also destroy any copies of the earlier ROUGH DRAFT version of this document.

This proposed project is currently scheduled to be "READY" for February, 1993. Therefore, it is respectfully requested that any comments on the enclosed document be sent to this office by **January 25, 1993**. Attachments for the APPENDIX (Part VI.) to this document are not included.

Please call this office at 444-7228 if there are questions about this document, and the "FAX" number is 444-7245.

Edrie Vinson

Edrie L. Vinson, Chief
Environmental & Hazardous Waste Bureau

ELV:ASJ:**1958-FWS.LET**

Enclosure

cc: James T. Weaver, P.E. - MDT Missoula District (#1) Engineer
David S. Johnson, P.E. - MDT Preconstruction Engineer
Edrie L. Vinson, Chief - MDT Environmental & Hazardous Waste Bureau
Dale W. Paulson, FHWA Montana Division Environmental Coordinator

United States
Department of
Agriculture

Forest
Service
406-755-5401

Flathead National Forest
1935 Third Avenue East
Kalispell, MT 59901

JAN 27 1993

Reply to: 2730/7710

Date: January 22, 1993

MASTER FILE
COPY

Edrie L. Vinson, Chief
Environmental and Hazardous Waste Bureau
Montana Department of Transportation
2701 Prospect Avenue
Helena, MT 59620-1001

Dear Ms. Vinson:

We have reviewed the Rough Draft copy of the Environmental Assessment for F1-2(59)182 Goat Lick Slide (U.S. #2, Glacier National Park) (P.M.S. Control #1958).

On page one this action is phrased as a "short-term emergency solution". It was our understanding at our meeting with the consultant and your agency personnel on October 1, 1992 that for all practical purposes the proposed wall (alternative #2) would correct the problem for the foreseeable future. Although the need for rip-rap (alternative #4) could not be entirely ruled out over the long term depending on river flows and flood events, some other solution may also be available at that time. It would be well if some other statement than "short term solution" could be used or attach a time estimate in years to "short term" to give the reader an insight into what you mean.

We have commented earlier on the Biological Resources Report which, as we understand, has been revised.

There are no other comments of substance to be offered on our part. We hope, as you do, that this contract can proceed to award and completion during the 1993 field season.

As a cooperating agency we thank you for the opportunity to review and comment on the draft.

Sincerely,

for JOEL D. HOLTROP
Forest Supervisor

United States Department of the Interior

NATIONAL PARK SERVICE
GLACIER NATIONAL PARK
WEST GLACIER, MONTANA 59936
(406) 888-5441
FAX: (406) 888-5581

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MASTER FILE
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IN REPLY REFER TO:

D30 (GLAC)

January 29, 1993

28 1993

Ms. Edrie L. Vinson, Chief
Environmental and Hazardous Waste Bureau
Montana Department of Transportation
2701 Prospect Avenue
Box 201001
Helena, Montana 59620-1001

Dear Ms. Vinson:

This is in response to your January 12, 1993 request for our review of the draft Environmental Assessment for the Goatlick Slide proposed repair work. We have the following comments:

Page 10. We are confused by the description of Alternative B as the "only feasible alternative...at this time". If this is the case, it seems that it would not be necessary to assess the other alternatives. If other alternatives are indeed feasible, but not preferred or recommended, the description should be modified to reflect that.

Page 11. It was our understanding from the discussions we had with your engineering staff and the design consultant on October 1, 1992 that the riprap alternative would not be considered as part of this work. It continues to be a major concern of ours that the placement of riprap in the Wild and Scenic River corridor will have significant adverse effects on the values for which the river was designated. If the riprap alternative must be considered as an alternative or is an integral part of the other alternatives, we feel that a higher degree of environmental assessment will be needed, possibly an environmental impact statement, and a formal Section 7-a determination will have to be done by ourselves and the Forest Service as managers of the river.

Page 20. The visual impacts of the alternatives should be described in the context of the overall characteristic landscape in the vicinity of the Goatlick area. This area, especially near the river, is characterized by numerous landslide areas that have sparse to no vegetation.

Page 21. We do not consider the viewing of goats from the road shoulder as an overall positive impact. While it may be exciting for travellers to see the goats in this manner, we feel that this is outweighed by the safety hazard caused by cars slowing or stopping in the traffic lanes or parking on the shoulders.

Page 22. The difference in roadway elevations or guardrail heights among the various alternatives is not clear from the description given. The actual height or elevation differences should be specified so that the visual impacts may be better understood.

Page 25. We recommend that consideration be given to coloring and texturing the exposed vertical concrete faces to reduce their visual impact.

Page 33. Under seedbed application, we suggest that area 1 be specified as "scarify and broadcase" rather than "drill or broadcast", and that the mulch requirements specify a hydromulch application with organic mulch and tackifier.

Page 34. We recommend that native plant species be substituted for the exotic species listed in the seed mixture as follows:

> Substitute Thickspike Wheatgrass for Reubens Canadian Bluegrass
> Substitute Western Wheatgrass, Slender Wheatgrass, Mountain Brome, Green Needlegrass, and Basin Wildrye for the entire list of substitute species.

Page 46. We do not anticipate having to close the Goatlick viewing area and parking lot to the public. Because of this, the paragraph dealing with this issue should be modified.

Page 47. Please delete the phrase "particularly in a westerly direction." since the vehicle restrictions on the Going-to-the-Sun Road apply to traffic in both easterly and westerly directions.

Appendix. We would like to review a copy of the hazardous waste materials contingency plan referenced on page 35 as an appendix to the environmental assessment.

We appreciate this opportunity to review and furnish our comments on this draft. Should you have any questions, please contact Mr. Bob Dunkley, our coordinator for this project at (406) 888-5441.

Sincerely,

Acting for

H. Gilbert Lusk
Superintendent

cc: Mr. Gordon L. Larson, MDOT, Engineering
Mr. Dale W. Paulson, FHWA, Helena
Mr. Doug Morgan, MDOT, Consultant Design Engineer
Mr. Ron Vanetta, USFS, Kalispell
Mr. Duane Holmes, RMR-PL
Ms. Christine Turk, RMR-PP

I & E file

MARCH 3, 1849

United States Department of the Interior

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FISH AND WILDLIFE SERVICE
FISH AND WILDLIFE ENHANCEMENT
FEDERAL BUILDING, US COURTHOUSE
301 S PARK, P O BOX 10023
HELENA MT 59626

IN REPLY REFER TO:

RECEIVED
DEC 21 1992
ENVIRONMENTAL BUREAU

MASTER
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M. 44 MT. Hwy
(Control #1958)

December 18, 1992

Edrie Vinson, Chief
Environmental & Hazardous Waste Bureau
Montana Department of Transportation
2701 Prospect Avenue
Helena, MT 59620-9726

Dear Ms. Vinson,

This is in response to your letter requesting that the Fish and Wildlife Service (Service) review the Draft Biological Resources Report pertaining to Federally listed threatened and endangered species for the proposed Goatlick Retaining Wall project in Glacier National Park.

The Service has reviewed the Biological Resources Report and concurs with the determination that the proposed project is not likely to adversely affect the endangered bald eagle (Haliaeetus leucocephalus), gray wolf (Canis lupus) and threatened grizzly bear (Ursus arctos horribilis), and with the no effect determination for the endangered peregrine falcon (Falco peregrinus), . In addition, the Service does not anticipate any incidental take of listed species as a result of the proposed project. Therefore, pursuant to S402.13 (a) of the 50 CFR, formal consultation is not required. If, after public review and comment, the final project design is changed so as to have effects on threatened or endangered species other than those described in the biological assessment, a revised biological assessment will need to be prepared. The Service will then issue a letter of concurrence/non-concurrence on the revised biological assessment.

We appreciate your efforts to ensure the conservation of these threatened and endangered species as a part of your responsibilities under the Endangered Species Act, as amended.

Sincerely,

Dale Harms

Dale R. Harms
State Supervisor
Montana State Office

RMH/rmh

United States
Department of
Agriculture

Forest
Service
406-755-5401

Flathead National Forest
1935 Third Avenue East
Kalispell, MT 59901

RECEIVED

JAN 6 1993

ENVIRONMENTAL BUREAU

Reply to: 2670/7470

Date: Dec. 23, 1992

MASTER
FILE
COPY

Edrie L. Vinson, Chief
Environmental and Hazardous Waste Bureau
2701 Prospect Avenue
Helena, MT 59620

Dear Mr. Vinson:

This memo documents the Flathead Forest review of your "Draft Biological Resources Report" for the goat lick retaining wall, project F 1-2(59) 182, December 10,1992.

The analysis and coordination measures contained within this report appear to adequately deal with wildlife, fish and plant species. Two items of clarification would appear helpful.

Sensitive plants - page 6 - transplanting individual plants to nearby sites or storing and returning individual plants to the project site seems meaningful only if the transplant site is environmentally suitable and adequate space is available to accommodate the transplanted and resident individuals. If either condition is not met the effort seems moot.

Bald eagle - page 8 - the last sentence on this page indicates that "no potential nesting habitat would be disturbed by the project". I believe you are indicating that no direct change to potential habitat would occur, since disturbance by human activity and noise was identified as a probable effect of your project.

Thank you for providing the Forest the opportunity to comment on your analysis.

Sincerely,

for JOEL D. HOLTROP
Forest Supervisor

cc:
R. Vannatta, SO
A. Christophersen, HHRD

1 4E H/e

United States Department of the Interior
NATIONAL PARK SERVICE
GLACIER NATIONAL PARK
WEST GLACIER, MONTANA 59936
(406) 888-5441
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TAKE PRIDE IN AMERICA

MASTER FILE COPY

cc: D. S. Johnson
Jim Weaver

IN REPLY REFER TO:

N16

January 12, 1993

JAN 19 1993
ENVIRONMENTAL BUREAU

Edrie L. Vinson, Chief
Environmental & Hazardous Waste Bureau
Montana Department of Transportation
2701 Prospect Avenue
Helena, Montana 59620-9726

Dear Ms. Vinson:

Thank you for allowing us to review and comment on the Draft Biological Resources Report for Goatlick Retaining Wall (Project F 1-2(59)182, Control #1958). In general, we agree with your conclusions that the proposed action is not likely to adversely affect the bald eagle, grizzly bear, or northern rocky mountain wolf, and will not affect the peregrine falcon, provided all heavy equipment work can be done from the existing road surface and the mitigating measures indicated are instituted during the construction process.

Following are several general editorial comments and some specific comments with respect to the proposed project and mitigating measures:

1. Page 1 (Exec. Summary) & Page 5. (Recommendations) - The entire Goat Lick Parking Area will not be available for use as a staging area or for the parking of vehicles not actively being used in the construction work. We may be able to set aside a small portion of this lot for these purposes, but would have to assure that public access to the restrooms and viewing area is maintained. We would like to discuss this further with your office as the designs and specifications are finalized for the project.

2. Page 1. The bear-proof garbage container design should be approved by the National Park Service.

3. Page 2. Please delete Dunkley's name from the listing of biologists consulted with. He is a landscape architect.

4. Page 2. (Agency Consultation) - spelling "Tilmant".

5. Page 3. (3rd para.) - Add Grizzly Bear (Ursus horribilis) to the species list. (5th para.) - "effects" rather than "affects".

6. Page 4. (6th para) - "Long-term" and "effects" rather than "affects." (7th para.) - "lessen." (8th para.) - Goat use is usually declining by the middle of July and construction will really encompass "less than half" of the high use period.

7. Page 5. (General Coord. Measures) - We do not feel that it would be necessary to close the Goat Lick Viewing Area to the public as the viewing platform use has no observable impact on goat use of the lick area. Closing the established overlook viewing area may in-fact displace visitors to roadside parking and increased intrusions off-road, thus increasing disturbance effects.

8. Pages 5 & 6. (Rare Plant Survey) - We agree that it would be good to conduct a brief survey for the possibility of rare plants on the construction site prior to the project. This will have to be done by a plant ecologist with specific knowledge of the species mentioned. We would anticipate that the project biologist, hired to monitor wildlife activity, would be a wildlife specialist and probably not qualified to conduct a rare plant survey.

9. Page 8. (Top) - Bull Trout are still relatively common in the Middle fork of the Flathead River.

10. Page 8. - We would like to review the contingency plan for responding to catastrophic events that is referenced in the discussion of fisheries.

11. Pages 9 and 11. - We recommend that the project biologist be identified as the contact for assessing the situation with both bald eagles and wolves, rather than or in addition to the MDT biologist.

12. Page 10. (Coord. Measures) - Garbage should be removed daily.

13. Page 11. - "Effects" rather than "affects".

14. Page 13. - Spelling "Tilmant".

We look forward to working with the Department over the coming summer on this project. If you would like to discuss any of our comments, please contact either me or Mr. Bob Dunkley, our coordinator for this project.

Sincerely,

Acting for
H. Gilbert Lusk
Superintendent

Enclosure

MONTANA DEPARTMENT OF TRANSPORTATION
Biological Resources Report
for

Goatlick Retaining Wall
Project F 1-2(59)182
Control #1958

January 11, 1993

EXECUTIVE SUMMARY

The primary intent of the proposed joint Montana Department of Transportation (MDT) and Federal Highway Administration (FHWA) project is to replace the Goatlick reinforced-earth (RE) retaining wall supporting a section of U.S. Highway 2 in Glacier National Park (GNP). A July 1 - November 1, 1993 construction work window is proposed; no blasting is anticipated. The key biological concern is the potential impact of the project on mountain goats using the adjacent Walton Goatlick. Implementation of the coordination measures will provide protection of the goats and will help ensure that only minimal disturbance will occur. The provisions and measures also allow removal or alteration of restrictions on construction times or activities should they prove to be ineffective or unnecessary. The project is not likely to adversely affect rare or sensitive plants, wildlife, or fish, and will not affect wetlands. It is the determination of this analysis that, if the required coordination measures are adhered to, the project is not likely to adversely affect the bald eagle, gray wolf, or grizzly bear; no effects on the peregrine falcon are anticipated. The following coordination measures are required:

- Downtimes of 0500-0730 and 1800-2200 will be observed; lifts on these restrictions are anticipated as goat usage decreases in late summer. Downtime is defined as a period in which no machinery is operating, workers and associated personnel are outside the work area, and other on site project related activities cease. Downtimes may be modified or eliminated due to lack of goat use, weather constraints, or other unforseen circumstances via recommendations and coordination with the project biologist, MDT biologist and GNP.

- A project biologist shall be provided to monitor wildlife and affects of construction activities upon wildlife, especially goats. Specifics and logistics of this position are still being developed. In general, the role of this biologist is to: monitor goats and affects of project activities upon goats, such as use of lick, travel movements, etc.;determine if downtimes are effective in reducing disturbance to goats and recommend changes or elimination if monitoring demonstrates this appropriate; provide education/training on bear/wildlife behavior, safety, etc. to workers and tourists as appropriate; and:conduct rare plant survey prior to construction (if qualified).

- Vehicles not actively being used on the project will be parked in a designated portion of the Goatlick Parking lot or other designated area away from the goat travel corridor.

- Prior to the onset of construction. the project manager shall contact an MDT and/or the project biologist to assess the overall status of wolves and nesting bald eagles in the project area. Spacial and/or temporal restrictions may be implemented at bald eagle nests or wolf dens established in the project area prior to construction.

- Garbage shall be disposed in grizzly bear-proofed containers approved by the National Park Service, and shall be removed daily. Any spills, litter, etc. will be cleaned up promptly. Possible attractants, such as anti-freeze and petroleum products, will be secured from animals and stored in a fashion that will not attract them.

- Education/training on bear safety, working in environmentally sensitive areas, etc., shall be provided to all personnel that will be working on site.

PROJECT DESCRIPTION

The Goatlick Slide project, located in the southern portion of Glacier National Park on U.S. Highway 2, is bordered by the Middle Fork of the Flathead River. The project is located at approximately milepost 182.1 between the Snowslide Gulch Bridge and the Goat Underpass (Figure 1), just north of the Goatlick viewing area.

The proposed action consists of constructing a new retaining wall behind (inside of) the existing RE wall supporting a section of the highway (Figure 2). This will be accomplished by pouring a retaining wall of 4-foot-diameter piles between the structural piles for the roadway fill. The tops of all piles will be connected by a cantilever beam, which will extend about 7 to 9 feet out from the pile centers.

The proposed construction sequence is as follows (Figure 3):

1. Drill shafts for concrete piles
2. Cast pile cap and concrete cantilever
3. Excavate inside of the piles to tieback level and remove RE wall
4. Construct guardrail

A July 1 - November 1, 1993 construction work window is proposed; no blasting is anticipated. During construction, heavy equipment will work from the existing road surface. The only land surface expected to be disturbed is a narrow strip inside of the existing road to facilitate traffic flow during construction.

STUDY METHODS

Agency Consultation and Literature Review

Requests for information pertaining to endangered, threatened, and sensitive plant and animal species were sent to the U.S. Fish and Wildlife Service (USFWS) and to the Montana Natural Heritage Program (MNHP). Additionally, GNP, USFWS, and U.S. Forest Service biologists familiar with the project area were interviewed (Hazelwood, Gregory, Burren, Martinka, Tilmant pers. comms.). A review of pertinent literature was conducted, and the Montana Rivers Information System (MDFWP 1988) was consulted for biological resources present in the Middle Fork Flathead River corridor. References and individuals consulted during the review of this proposed project are noted at the end of the document.

Field Surveys

Because of the project's time schedule, reconnaissance-level field surveys were only conducted in November 1991 and January 1992. The project right-of-way was examined on foot while surveying for wildlife and sign, such as tracks, scat, and nest structures.

STUDY RESULTS

Terrestrial Resources

General Description. The Middle Fork of the Flathead River is located approximately 100 feet below the roadway. The slope, separating the road and river is steep (38 degrees), sparsely vegetated, and erosive. Cottonwoods (Populus spp.) are scattered near the river bottom. A mosaic of native conifers, shrubs, bunch grasses and patches of bare ground dominate the landscape environment. The project area is located at approximately 4000' elevation.

The project is located in optimal elk (Cervus canadensis) winter range and marginal mule deer (Odocoileus hemionus) winter range. The animals often cross the highway during twilight and night hours.

Singer (1975) compiled a list of other species observed during his study of the original construction of the overpasses and retaining walls. While this is not complete list of species that may use the project area, it does provide an overview of the prominent ones. The list includes: moose (Alces alces), grizzly bear (Ursus horribilis), black bear (Ursus americanus), pine marten (Martes americana), coyote (Canis latrans), porcupine (Erethizon dorsatum), bushy-tailed woodrat (Neotoma cinerea), Columbian ground squirrel (Spermophilus columbianus), snowshoe hare (Lepus americansus), red squirrel (Tamiasciuras hudsonicus), northern flying squirrel (Glaucomys sabrinus), yellow pine chipmunk (Eutamias amoenus), least chipmunk (Eutamias minimus), western jumping mouse (Zapus princeps), deer mouse (Peromyscus maniculatus) and golden-mantled ground squirrel (Spermophilus lateralis). Additionally, the mountain lion (Felis concolor) is known to occur in the vicinity.

Bird species include: kestrel (Falco sparverius), western bluebird (Sialia mexicana), great-horned owl (Bubo virginianus), dipper (Cinclus mexicanus), raven (Corvus corax), ruffed grouse (Bonasa umbellus), pileated woodpecker (Dryocopus pileatus), varied thrush (Ixoreus naevius), gray jay (Perisoreus canadensis), and Steller's jay (Cyanocitta stelleri). Additionally, golden eagles (Aquila chrysaetos) have nested along Lower Ole Creek in the 1970's.

Mountain Goats. Just south of the retaining wall and overpasses on Highway 2 is a unique mineral lick, one of the few such licks in Glacier National Park, used extensively by mountain goats. Research and monitoring conducted in the 1970's and early 80's provides insight on local goat ecology: use of the lick, travel patterns, and effects of disturbances.

Mountain goats travel distances from within the park and from the adjacent Flathead National Forest to the lick area. April through August are most concentrated use periods, although use occurs year-round. Mountain goats are crepuscular in nature, and daily use of the lick tends to occur most frequently during twilight spans of dawn and dusk, roughly 0600 - 0730 and 1800 - 2200.

The importance of the lick to the goats can be illustrated by the sheer number of and repeated visits of goats to the lick and also by the goats tolerance of disturbances incurred. In 1981, for example, 1,288 mountain goats sightings (100 to 200 individuals) were documented at the lick between January 1 and September 1. While the goats continue to use the lick area in spite of vehicular and humans presence, it is not without signs of stress and indications of disturbance.

Past Management. The existing goat overpasses, the Snowslide bridge and the Goat Bridge, were built during 1980-1981. Goat ecology was a major consideration in design and installations of the bridges. The bridges were designed to allow and facilitate passage of goats under the highway in a safe and effective fashion. Previously, goats would cross over the highway, causing unsafe conditions for motorists and goats. Today, the underpasses function as effective passages and are examples of truly successful endeavors.

During the construction, numerous restrictions and coordination measures were implemented to help alleviate disturbance to the goats. These special coordination measures were instrumental to the success of the project.

Impacts. The proposed replacement of the retaining wall between Snowslide and Goat bridges will entail drilling, operation of heavy equipment, and minor earth disturbance. The majority of the activities is planned to occur on the existing roadway or retaining wall. Workers are not expected to routinely go under either of the bridges to accomplish their work.

The proposed project will not alter the effectiveness of winter range or impact wintering animals. This conclusion is based on the assumption that construction activities will occur during the planned work schedule of July 1 to November 1. Winter range habitat loss will not occur, and highway-associated mortality of deer and elk will not change from present levels due to the implementation of the proposed action.

The preferred alternative will disturb a minimal amount of previously disturbed grass habitat for purposes of the traffic detour in the northbound lane. This minimal amount of habitat loss is not deemed significant.

No direct goat habitat loss is expected to occur. The impacts of the project on the goats will primarily be disturbance. In areas of crucial habitat or during critical seasons of use, impacts of disturbance upon animals can be significant. Results of disturbance impacts can render habitat useless by causing the animals to avoid or flee from areas. Long-term detrimental effects can occur and can result in loss of animals.

The goatlick area is considered an important part of the goats' habitat. Noise from drilling and other associated activities, presence of workers, and increased activity levels are expected to disturb the goats. Without measures to lessen impacts, the affects of the disturbance could be significant.

Construction is planned for July 1 - November 1, which encompasses less than half of the high goat use period. Goat use is usually declining in the area by mid-July. Past research and monitoring of the construction project in 1980-1981 demonstrated that activities can occur with minimal short term impacts provided special measures are implemented and enforced.

General Coordination Measures

The following coordination measures are proposed to help ensure protection of natural resources, minimize disturbance to wildlife, provide for safety of workers, and to facilitate project construction.

- Downtimes of 0500-0730 and 1800-2200 will be observed; lifts on these restrictions are anticipated as goat usage decreases in late summer. This quiet period coincides with goats daily high use time, allowing the goats a daily predictable time of non-disturbance in which to use the lick. Downtime is defined as a period in which no machinery is operating, workers and associated personnel are outside the work area, and other on site project related activities cease. Downtimes may be modified or eliminated due to lack of goat use, weather constraints, or other unforseen circumstances via recommendations and coordination with the project biologist, MDT biologist and GNP.

- A project biologist shall be provided to monitor wildlife and affects of construction activities upon wildlife, especially goats. Specifics and logistics of this position are still being developed. In general, the role of this biologist is to: monitor goats and affects of project activities upon goats, such as use of lick, travel movements, etc.;determine if downtimes are effective in reducing disturbance to goats and recommend changes or elimination if monitoring demonstrates this appropriate; provide education/training on bear/wildlife behavior, safety, etc. to workers and tourists as appropriate; and:conduct rare plant survey prior to construction (if qualified).

- Vehicles not actively being used on the project will be parked in a designated portion of the Goatlick Parking lot or other designated area away from the goat travel corridor.

Rare and Sensitive Species. Rare and sensitive plants and animals are species for which there is a concern for their viability based on current or expected downward trends in populations or habitat capability. Tracking these species and their habitats is important to help determine the health of ecosystems and status of biological diversity. A review of rare and sensitive species that may occur in the Goatlick project area and a determination of effects follows.

Plants. Literature review of the fifty rare and sensitive plant species that may occur in Flathead County indicated that at least 10 species may occur in or near the project area. While the Natural Heritage Program did not have any records of sensitive plants in the project area, it is not necessarily indicative that they are absent. Because wetlands or riparian areas would not be affected by the proposed action, wet-site plants were excluded from additional review. The literature reviewed identified the following 10 species as potentially occurring:

Allium fibrillum
Arabis lyrata

Asplenium trichomanes
Chrysosplenium tetrandrum
Halenia deflexa
Lomatium geyeri
Ophioglossum vulgatum
Oxytropis columbiana
Thelypteris phyopteris
Vaccinium myrtilloides

Impacts. The area to be impacted by the project is a previously disturbed area located adjacent to the northbound lane opposite the existing retaining wall. The probability that rare or sensitive plants are established in this area is low and therefore, minimal, if any, impacts are anticipated. However, a final determination of effect on rare and sensitive plant species cannot be made until a survey is conducted during the growing season.

The final determination of project impact upon sensitive plants can be easily be accomplished by surveying the area of land expected to be disturbed prior to construction activities. The survey could be conducted by a Park Service plant ecologist and MDT biologist. Currently, plans exist to have a biologist on site to primarily study and monitor mountain goat behavior in relation to construction activities. As an alternative, this person, if qualified, could conduct the plant survey just prior to construction. Should species be found, the plants could be removed for permanent or temporary transplanting to a nearby suitable site, as determined by environmental and spacial conditions, until they can be returned to the site after completion of disturbance. If such a measure is accomplished, the impacts of the proposed project upon rare and sensitive plants should not be significant.

Wildlife

Common Loon (Gavier immer) - The loon is associated with secluded lakes, generally larger than 10 acres. Suitable loon habitat is not present in or near the project area. Additionally, the project area has not been identified as a travel corridor or transient habitat for the loon. Because of these reasons, the proposed project will not impact the common loon.

Boreal Owl (Aegolius funerius) - The boreal owl commonly lives in mature to old growth forests above 5000' in elevation. The nocturnal owl feeds primarily on small rodents. Nesting season begins late winter and lasts until late spring. Suitable habitat for the boreal is present in the general project vicinity, though the elevation is about 4000'. Population status of the owls in the project are is unknown.

The proposed project will not take or modify any boreal owl habitat. Noise disturbance from the construction activity may occur should owls exist in close vicinity. The noise disturbance will most likely occur during the day and will avoid the critical spring nesting times. Secured areas, free of noise disturbance, are available to the owl outside the construction zone. If disturbance impacts to the boreal owl do occur, they are likely to be minor and temporary in nature.

Harlequin Duck (Histrionicus histrionicus) - Harlequin ducks migrate from coastal waters inland to nest on remote, fast-flowing mountain streams. The adjacent Middle Fork of the Flathead River provides both nesting and rearing habitat for the duck. Adult and juvenile harlequin ducks have been documented on the Middle Fork of the Flathead.

The proposed project is not expected to detrimentally affect the harlequin duck. Work is proposed to occur in summer through fall, thereby avoiding sensitive nesting times of the harlequin. Work will be confined to the road corridor located over 100' above the river and will not directly impact harlequin habitat. Erosion control measures will be employed, preventing material from leaving construction area and entering the river corridor. Should temporary noise disturbance occur, displacement areas exist up and down stream. This temporary displacement is not considered to be detrimental to the harlequin, and the project is not anticipated to cause detrimental impacts on the harlequin duck or its habitat.

Coeur d'Alene salamander (Plethodon vandykei idahoensis) - Coeur d'Alene salamanders occur on/in damp rock faces and in splash zones along streams. Suitable habitat for the salamander may occur in the general project vicinity, although it does not occur in the area that will be disturbed. The population, location, and number of Coeur d'Alenes in the project vicinity is unknown.

Alteration of the salamanders habitat is not expected to occur; suitable habitat does not occur within the area of ground expected to be modified. No significant impacts to this species are expected.

Western big-eared bat (Plecotus townsendii) - Western big-eared bats have been found in a wide variety of habitats, from arid juniper/pine communities to high elevational coniferous forests. Caves or tunnels are the primary roost sites for nesting and winter hibernation. The bats are also known to use dead trees. Western big-eared bats are extremely sensitive to human activities. Disturbance can result in the bats permanently abandoning roost sites. Status of active roosting sites in project vicinity is unknown; however, no caves or tunnels occur in the project area (Gregory pers. comm.).

The proposed project will not impact any habitat directly; impacts to this species are expected to be less than significant.

Aquatic Resources

The project site is adjacent to the Wild and Scenic Middle Fork of the Flathead River. The pristine Middle Fork provides quality habitat for three sensitive fish: westslope cutthroat trout, bull trout and shorthead sculpin. Westslope cutthroat and bull trout are common in the river, while the sculpin is considered rare. Currently, the bull trout is being reviewed to determine whether it needs to be considered for protection under the Endangered Species Act.

Other Middle Fork fish species include: mountain whitefish (abundant); largescale suckers and slimy sculpins (common); and brook trout, kokanee, and longnose suckers (rare). The river has outstanding esthetics and is considered a high-quality recreational fishery.

Replacement of the retaining wall should not detrimentally affect the fisheries or habitat provided that loose materials and sediments do not enter the stream. Increases in sedimentation could have a negative effect upon the sensitive trout species; any water quality degradation is not desirable. Catastrophic events, such as loss of heavy equipment into the river or a hazardous waste spill, could detrimentally affect water quality and fisheries. While these events have a low probability of occurring, a contingency plan has been developed should they occur.

Providing that erosion control measures are effective and no catastrophic events occur, the project will not detrimentally affect fisheries and actually may have long-term beneficial affects upon fisheries and water quality. Without securing the present roadbed, a failure may occur, resulting in massive slope failure, degradation of water quality, and negative fisheries impacts.

Threatened and Endangered Species

Four federally listed threatened or endangered species may be present in the project area. They are the:

Northern Bald Eagle (Haliaeetus leucoephalus) - endangered;
Northern Rocky Mountain Wolf (Canis lupus) - endangered;
Peregrine Falcon (Falco peregrinus) - endangered; and
Grizzly bear (Ursus arctos horribilis) - threatened.

Bald Eagle. Bald eagles and their habitat are afforded protection under several state and federal laws, including the Endangered Species Act, Eagle Protection Act, and Nongame and Endangered Species Conservation Act. The project area falls within the Upper Columbia Basin Recovery Zone (Zone #7) for the bald eagle as identified in the Montana Bald Eagle Management Plan (MBEWG 1986).

According to the USFWS, eagles may occur in the project area as seasonal migrants (Harms 1991). No eagle nests are known to occur within several miles of the proposed project; however, adult eagles have been observed in the Middle Fork Flathead River corridor during the summer, and it is possible that new or previously undiscovered nests may occur in the area (Gregory pers. comm.). Consequently, the status of nesting eagles in the project area should again be checked to ensure that no nests will be affected. If new nesting sites are located, measures to protect the integrity of the nesting sites may be necessary. No potential nesting habitat would be directly altered by the project.

Eagle use in the project vicinity occurs primarily along the Middle Fork Flathead River where potential nest, perch, and roost trees are abundant. Bald eagles may occur as spring and fall migrants, summer residents, and winter residents.

Construction activities during these periods may temporarily disturb or displace foraging eagles where the highway is visible from the river. However, because: (1) no primary eagle concentration areas (e.g., primary foraging areas or communal roosts) have been identified in the project area; (2) the area of disturbance would be very confined, and (3) undisturbed habitat for displaced birds is abundant in the surrounding area, these impacts are considered to be less than significant.

Additionally, as the project will not directly affect the Middle Fork Flathead River (e.g., no riprap, bank or instream work is proposed and erosion control measures will be implemented), no significant impacts to food stocks are expected.

Conservation Measures.

- Required: Prior to the onset of construction, the project manager shall contact an MDT and/or the project biologist to assess the overall status of nesting bald eagles in the project area. Spacial and/or temporal restrictions may be implemented at bald eagle nests established in the project area prior to construction.

Determination of Effects. Based on the above information and required coordination measure, it is determined that implementation of the proposed action is not likely to adversely affect the bald eagle or its critical habitat.

Peregrine falcon. Peregrine falcons are not known to reside in or near the project area, and no active or proposed hack sites occur in the area (Gregory pers. comm.). Additionally, the proposed project will not take any suitable peregrine falcon nesting habitat. Consequently, no impacts to nesting peregrines are anticipated.

Transient or migratory birds may occasionally occur in the project vicinity. Potential habitat for migrating falcons in the area primarily occurs along the river corridor, and construction during fall may temporarily disturb peregrines foraging along the river. However, it is anticipated that few, if any, peregrines would be displaced during construction. Additionally, similar habitat is abundant in the immediate vicinity and would provide ample habitat for displaced birds. Therefore, impacts to migrating peregrines resulting from construction of the project are considered to be less than significant.

Determination of Effects. Based on the above information, it is determined that implementation of the proposed action will not affect the peregrine falcon or its critical habitat.

Grizzly Bear. The grizzly bear is listed as a threatened species under the Endangered Species Act. The proposed project lies within the Northern Continental Divide Ecosystem, one of the designated grizzly bear recovery zones.

Grizzly bears occur as residents in the project area (Harms 1991; Gregory pers. comm.). Many grizzlies have been sighted on the slopes of Running Rabbit Mountain, on which the project is located (Gregory pers. comm.). Most of these sightings have occurred in the late summer and fall. Bears are most likely attracted to this area by the abundance of ungulates, including elk and mountain goats.

The presence of workers and associated bear attractants, such as food, petroleum products, etc., increases the potential for bear-human conflict to occur. However, if proper measures regarding garbage disposal and appropriate conduct in bear country are implemented, the potential for such conflict should be reduced to less-than-significant levels.

Due to the confined nature of the project, construction-related disturbance to grizzly bears is expected to be less than significant. Abundant displacement habitat occurs in the immediate project area, and construction would not affect grizzly habitat or prey populations. Consequently, no significant impacts to grizzly bears are anticipated.

Coordination Measures

- o Garbage will be disposed in grizzly bear-proofed containers approved by the National Park Service, and shall be removed daily. Any spills, litter, etc. will be cleaned up promptly. Possible attractants, such as anti-freeze and petroleum products, will be secured from animals and stored in a fashion that will not attract them.

- o Provide education/training on bear safety, working in environmentally sensitive areas, etc., to all personnel that will be working on site.

Determination of Effects. Based on the above information and coordination measures, it is determined that implementation of the proposed action is not likely to adversely affect the grizzly bear or its critical habitat.

Northern Rocky Mountain Wolf. The endangered wolf is most likely to occur in the project area as an incidental or dispersing animal. Tracks have been observed and individuals are occasionally sighted in the general area (Gregory pers. comm.). No known den or rendezvous sites occur in the area, although pack establishment is possible at any time (Gregory pers. comm.).

Wolf management and recovery is tied to maintaining healthy prey (ungulate) populations and availability of security cover (USFWS 1987). As neither of these habitat parameters will be affected by construction, the project is not expected to significantly affect the wolf.

Prior to construction, the status of wolves in the project area should again be checked to ensure that no significant impacts to this species would result from the project.

Conservation Measures

- o Required: Prior to the onset of construction, the project manager shall contact an MDT and/or the project biologist to assess the overall status of wolves in the project area. Spacial and/or temporal restrictions may be implemented near dens established in the project area prior to construction.

Determination of Effects. Based on the above information, it is determined that implementation of the proposed action is not likely to adversely affect the gray wolf or its critical habitat.

Conclusions: Threatened and Endangered Species. It is the determination of this report that the proposed action is not likely to adversely affect the bald eagle, grizzly bear, or gray wolf. No effects to the peregrine falcon are anticipated. The specified mitigation/coordination measures have influenced the conclusions drawn from this assessment, and are subject to subsequent review by the Endangered Species Office of the USFWS to determine compliance with the Endangered Species Act. Consequently, any substantive deviation from the proposed measures contained in this assessment will require approval from that office.

Wetlands

Existing Conditions and Impacts. No wetlands occur in the project area, and none would be affected by construction.

REFERENCES

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Figure 1

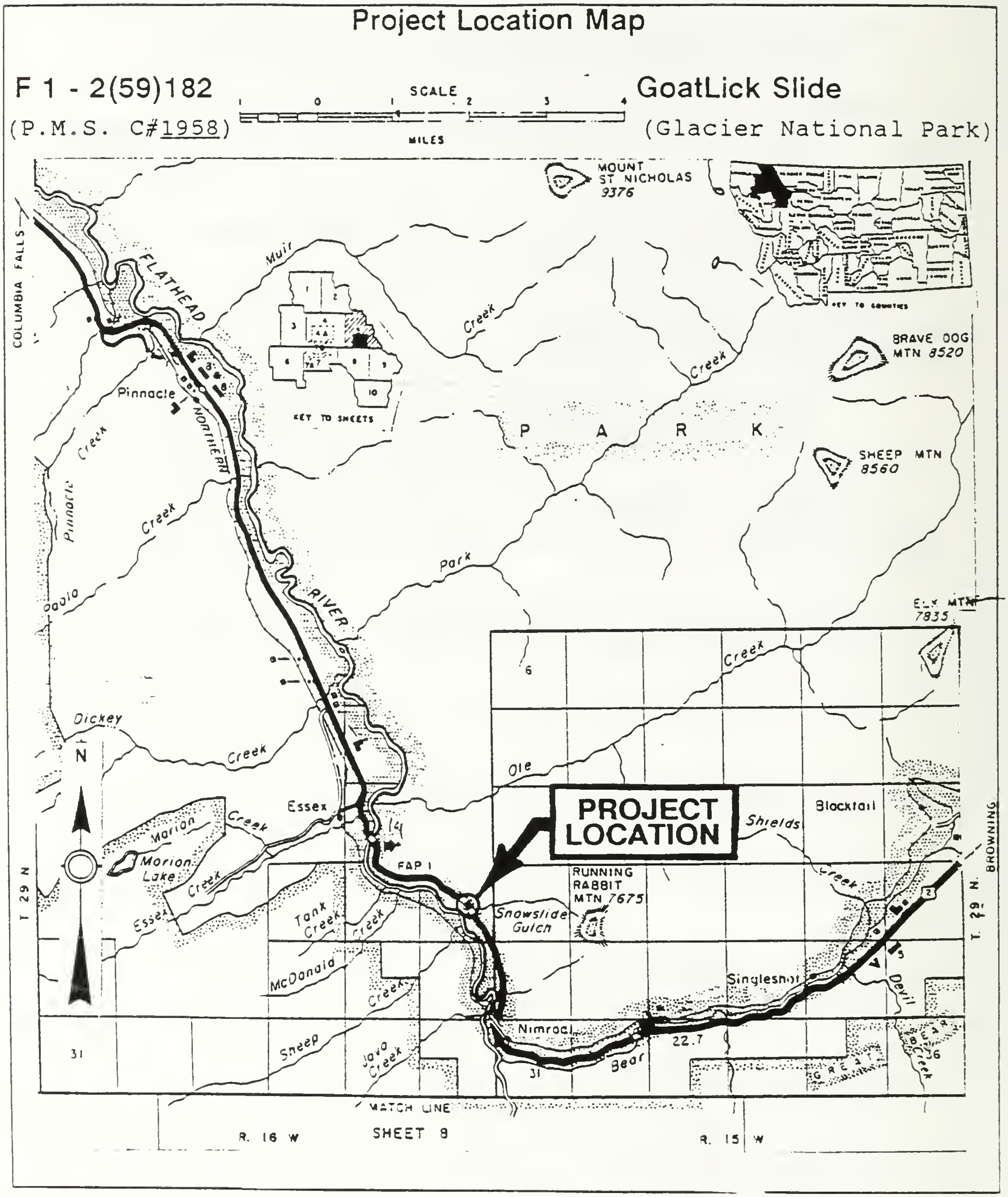
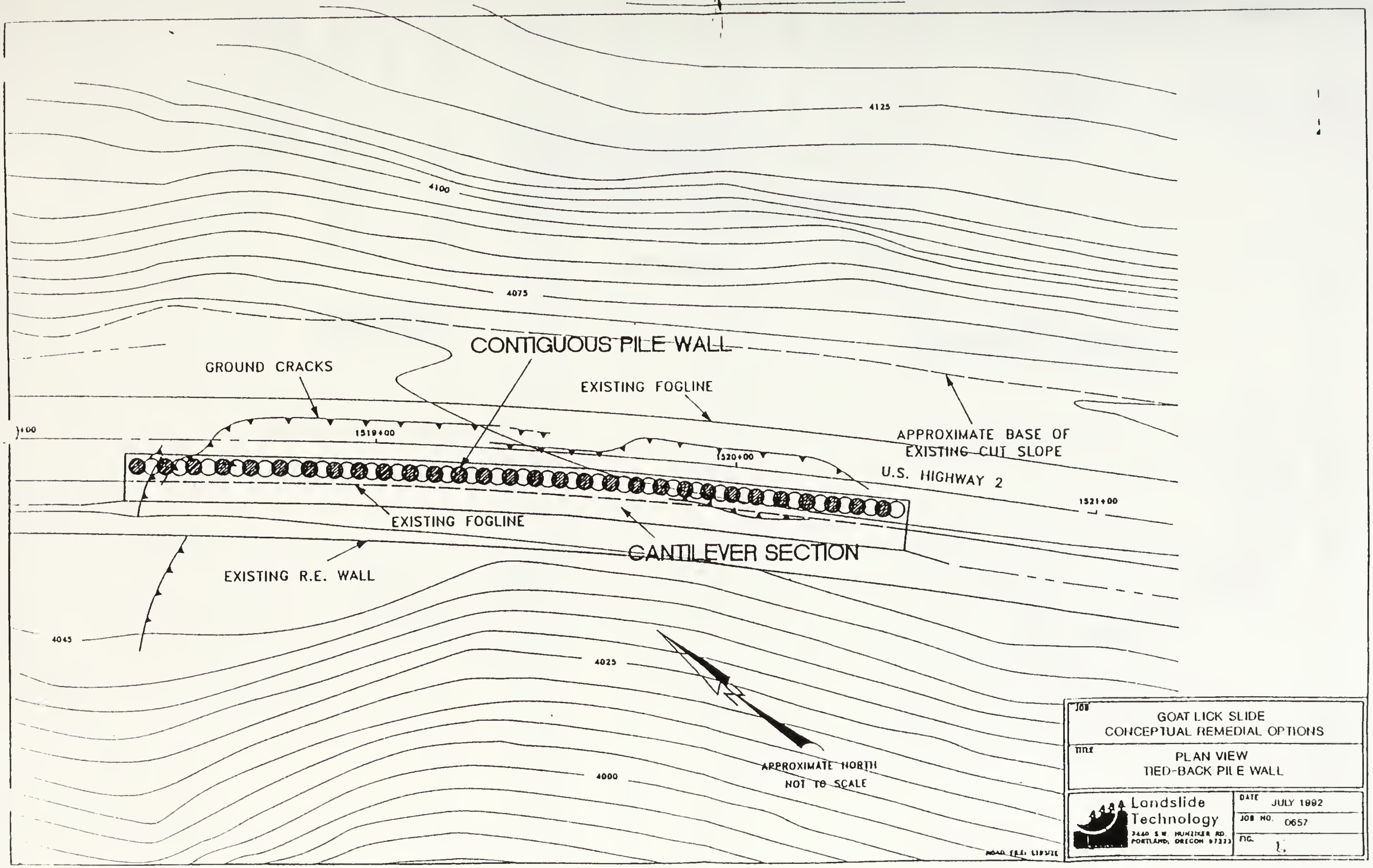
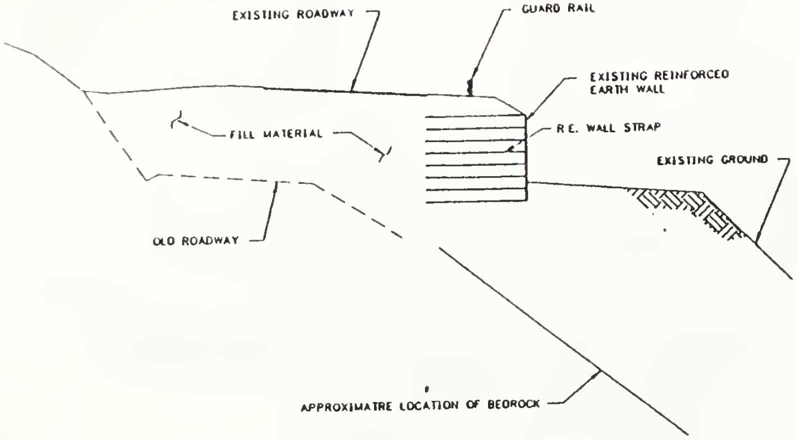

Project Location Map
F 1 - 2(59)182
(P.M.S. C#1958)
SCALE
0
1
2
3
4
MILES
GoatLick Slide
(Glacier National Park)
MOUNT ST NICHOLAS 9376
KEY TO COUNTIES
BRAVE DOG MTN 8520
SHEEP MTN 8560
ELK MTN 7835
KEY TO SHEETS
1
2
3
4
4A
5
6
7&7
8
9
10
COLUMBIA FALLS
FLATHEAD
RIVER
NORTHERN RR
Pinnacle
Pinnacle Creek
Creek
Muir
Creek
Creek
P A R K
Park
Creek
Paola
Dickey
Creek
Ole
Creek
Essex
Marion
Marion Lake
Creek
Essex
Creek
Tank Creek
Creek
McDonald
Creek
Sheep
Java Creek
N
FAP 1
PROJECT LOCATION
RUNNING RABBIT MTN 7675
Snowslide Gulch
Shields
Creek
Blacktail
Singleshot
Devil
Nimrod
Bear
22.7
GREAT
BEAR
Creek
6
31
36
2
T 29 N
T. 29 N.
BROWNING
MATCH LINE
SHEET 8
R. 16 W
R. 15 W

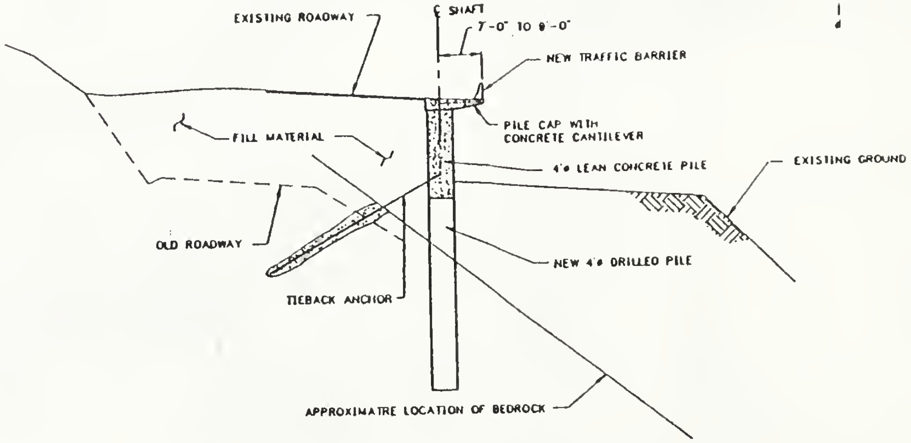
Figure 2


4125
4100
4075
CONTIGUOUS PILE WALL
GROUND CRACKS
EXISTING FOGLINE
APPROXIMATE BASE OF EXISTING CUT SLOPE
U.S. HIGHWAY 2
1519+00
1520+00
1521+00
EXISTING FOGLINE
CANTILEVER SECTION
EXISTING R.E. WALL
4045
4025
4000
APPROXIMATE NORTH
NOT TO SCALE
JOB
GOAT LICK SLIDE
CONCEPTUAL REMEDIAL OPTIONS
TITLE
PLAN VIEW
TIED-BACK PILE WALL
Landslide Technology
2440 S.W. HUNZIKER RD. PORTLAND, OREGON 97223
DATE JULY 1992
JOB NO. 0657
FIG. 1

FED ROAD DIV NO	STATE	FED AID PROJ NO	SHEET NO	TOTAL SHEETS
[illegible]	MONT			



CROSS SECTION OF EXISTING ROADWAY
STA 1518+70



CROSS SECTION OF ROADWAY WITH DRILLED SHAFT WALL AND TIEBACK
STA 1518+70

Figure 3

CONSTRUCTION SEQUENCE

1. CONSTRUCT DRILLED SHAFTS.
2. CAST PILE CAP AND CONCRETE CANTILEVER.
3. EXCAVATE TO TIEBACK LEVEL AND REMOVE R.E. WALL.
4. CONSTRUCT ALL TIEBACKS.
5. CONSTRUCT TRAFFIC BARRIER.

STATE OF MONTANA
DEPARTMENT OF TRANSPORTATION

DESIGNED		
DRAWN		
CHECKED		
REVISED		
REVISED		
REVISED		

GOAT LICK PROJECT
RETAINING WALL ALTERNATE
FIGURE 27
DRAWING NO

& E file

MONTANA NATURAL HERITAGE PROGRAM
1515 East Sixth Avenue
Helena, Montana 59620
(406) 444-3009

December 5, 1991

Edrie Vinson
Department of Transportation
Environmental Section
2701 Prospect Avenue
Helena, Montana 59620

Dear Edrie:

In response to your request for information, we checked our databases for information on sensitive species in the vicinity of the following highway projects: Goatlick Slide; Looking Glass Hill; and District #3 GVW Sites. F1-2(59)182, C#1958

We currently have no information on sensitive species in these project areas.

Please remember that the results of a data search by the Montana Natural Heritage Program are not intended as a final statement on sensitive species within a given area, or as a substitute for on-site surveys needed for environmental assessments.

I hope this information is helpful. Let us know if we can be of further assistance.

Sincerely,

Margaret Beer

Margaret Beer
Data Manager
DEC 0 9 REC'D

The Nature Conservancy and Montana State Library

T&E file

United States Department of the Interior

FISH AND WILDLIFE SERVICE

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:

FISH AND WILDLIFE ENHANCEMENT
FEDERAL BUILDING, US COURTHOUSE
301 S PARK
P O BOX 10023
HELENA MT 59626

4000'

M. 44 Goatlick Slide, US Hwy 2

December 11, 1991

DEC 12 REC'D

Edrie L. Vinson
Montana Dept. of Highways
2701 Prospect AV
Helena, MT 59620

Dear Ms. Vinson:

This is in response to your letter of November 14, 1991 regarding proposed remedial corrections at the Goat Lick Landslide and Retaining Wall Failure on Forest Highway Project 13-3(4) and Fl-2 (13) 179 (U.S. 2) in Flathead County, Glacier National Park. Your letter was received by our office on November 18, 1991.

In accordance with Section 7(c) of the Endangered Species Act of 1973, as amended (ESA), we have determined that the following listed, proposed and category 1 candidate threatened or endangered (T/E) species may be present in the project area.

Listed Species	Expected Occurrence
grizzly bear (Ursus arctos horribilis)	Resident.
gray wolf (Canis lupus)	Resident and Transient.
bald eagle (Haliaeetus leucocephalus)	Migrant.
peregrine falcon (Falco peregrinus)	Migrant.

Proposed Species

None

Category 1 Candidate Species

None

Section 7(c) of ESA requires that Federal agencies proposing major construction activities complete a biological assessment to determine the effects of the proposed actions on listed and proposed species and use the biological assessment to determine whether formal consultation is required. A major construction activity is defined as "a construction project (or other undertaking having similar physical impacts) which is a major Federal action significantly affecting the quality of the human environment as referred to in the National Environmental Policy Act" (50 CFR Part 402). If a biological assessment is not required (i.e. all other actions), the Federal agency is still required to review their proposed activities to determine whether listed species may be affected. If such a determination is made, formal consultation with the Fish and Wildlife Service (Service) is required.

For those actions wherein a biological assessment is required, it should be completed within 180 days of initiation, but can be extended by mutual agreement between the Federal agency or its designated non-Federal representative and the Service. If the assessment is not initiated within 90 days, the list of T/E species should be verified with the Service prior to initiation of the assessment. The biological assessment may be undertaken as part of the Federal agency's compliance of Section 102 of the National Environment Policy Act (NEPA) and incorporated into the NEPA documents. We recommend that biological assessments include the following:

1. A description of the project,
2. A description of the specific area that may be affected by the action,
3. The current status, habitat use, and behavior of T/E species in the project area,
4. Discussion of the methods used to determine the information in Item 3,
5. An analysis of the affects of the action on listed species and proposed species and their habitats, including an analysis of any cumulative effects,
6. Coordination/mitigation measures that will reduce/eliminate adverse impacts to T/E species,
7. The expected status of T/E species in the future (short and long term) during and after project completion,
8. A determination of "is likely to adversely affect" or "is not likely to adversely affect" for listed species,
9. A determination of "is likely to jeopardize" or "is not likely to jeopardize" for proposed species.
10. Citation of literature and personal contacts used in developing the assessment.

If it is determined that the proposed program or project "is likely to adversely affect" any listed species, formal consultation should be initiated with this office. If it is concluded that the project "is not likely to adversely affect" listed species, we should be asked to review the assessment and concur with the determination of no adverse effect.

Pursuant to Section 7(a) (4) of ESA, if it is determined that any proposed species may be jeopardized, the Federal agency should initiate a conference with us to discuss conservation measures for those species. Although candidate species have no legal status and are accorded no protection under ESA, they are included here to alert your agency of potential proposals or listings.

A Federal agency may designate a non-Federal representative to conduct informal consultation or prepare biological assessments. However, the ultimate responsibility for Section 7 compliance remains with the Federal agency and written notice should be provided to the Service upon such a designation. We recommend that Federal agencies provide their non-Federal representatives with proper guidance and oversight during preparation of biological assessments and evaluation of potential impacts to listed species.

Section 7(d) of ESA requires that the Federal agency and permit/license applicant shall not make any irreversible or irretrievable commitment of resources which would preclude the formulation of reasonable and prudent alternatives until consultation on listed species is completed.

Please contact us by mail at the above-referenced letterhead address or call Rob Hazlewood at (406) 449-5225 or FTS 585-5225 if we can be of further assistance. Your interest and cooperation in meeting our joint responsibilities under the Endangered Species Act are appreciated.

Sincerely,

Dale R. Harms
State Supervisor
Montana State Office

DRH/ndg

VINSON.LTR

cc: ARD, FWE, FWS - Denver, CO (60120)

TxE file
Tilmont

United States Department of the Interior
NATIONAL PARK SERVICE
GLACIER NATIONAL PARK
WEST GLACIER, MONTANA 59936
(406) 888-5441
FAX: (406) 888-5581

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:

D30 (GLAC)

April 2, 1992

APR 13 1992

Mr. Doug Morgan, P.E.
Consultant Design Section
Montana Department of Transportation
2701 Prospect Avenue
Helena, Montana 59620-9726

Dear Mr. Morgan:

This is in response to your letter of March 13, 1992, requesting information needed for the hiring of a biologist for the Goatlick Retaining Wall repair job. I spoke to Mr. Naseem of your office on March 27, and we agreed that, since Glacier National Park would hire the biologist, the information requested earlier would not be needed.

We are planning to hire a GS-5 level biologist for the wildlife monitoring work, bringing him or her on 2 weeks in advance of the proposed work to develop baseline information. The work would continue until construction is completed about November 1. We estimate that the cost would be $12,000 to fund the salary, benefits, and vehicle associated with the work. We normally provide for the transfer of funds in this kind of situation by initially entering into a Memorandum of Agreement, and effecting the actual funds transfer near the end of the time period for the work. Please let me know if you have any special procedures on this and how you would like to proceed.

Thank you for your assistance in this proposed monitoring work. Should you have any questions, please give me a call at 888-5441.

Sincerely,

Bob Dunkley
Landscape Architect